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DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

Over the Lower Mainland of British Columbia clouded skies with frequent showers predominated, whilst in other districts fair weather with much bright sunshine and deficient precipitation was the rule. Minimum temperatures occurred generally during the second week, and in some localities were well below zero. Towards the end of the month some spring flowers were beginning to bloom on Vancouver Island.

In the North-west Territories much fine weather was experienced with temperatures below zero nearly every night. Precipitation was light and no general gales were recorded. The greatest cold occurred during the second or third week when minimum temperature of from 20° to 50° below zero were recorded.

In Manitoba, as in the Territories much cold weather occurred, the coldest periods being from 10th to 14th and the last ten days of the month, when temperatures much below zero were recorded. As a rule the precipitation was deficient, but in some localities there was a slight excess of the average amount.

In Ontario the weather was exceedingly cold and the precipitation was quite light in the western part. During the first two or three days when the maximum temperatures of the month were recorded at most places the weather was generally fine. On or about the 3rd, however, there was a marked change and temperatures near or below zero were general. On the 8th it again turned milder, although the nights continued cold until about the 15th. Comparatively high temperatures prevailed from the 16th to 22nd, after which, although the day temperatures frequently exceeded 20, the nights were cold and 5° to 10° below zero was recorded at many stations upon several dates up to the 31st. The proportions of bright sunshine did not depart much from the average, and although there were many bright days, clouded skies with light falls of snow were of frequent occurrence. On or about the 7th, 15th, 25th and 26th especially, high winds and gales were reported when the snow was much drifted and railroad traffic was interrupted. Good sleighing has been general throughout the month.

The weather in Quebec was unusually cold with the temperature frequently below zero, and on some occasions considerably below. The coldest periods were from the 4th to 6th, 14th and 15th, 18th and the last ten days. High winds and gales were also experienced, but the snowfalls, although numerous, were as a rule only light, the exceptions to the rule being the snowfalls which occurred on the 12th and 19th, but even these were not exceptionally heavy. In Western districts the precipitation was largely in excess of the average amount as was also the case in some localities in the north-eastern portion of the Province.

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In New Brunswick exceedingly cold weather with temperatures frequently much below zero and an excessive snowfall marked the January weather. Frequent high winds caused much drifting, and on the last day of the month, the depth of snow on the ground exceeded thirty inches in most localities.

In Nova Scotia the weather was unusually cold and stormy with frequent gales and heavy precipitation, the latter being largely snow. Minimum temperatures occurred during the third week and were generally much below zero.

In Prince Edward Island the weather was also unusually cold and stormy with many gales and some heavy snowfalls. At the close of the month the depth of snow on the ground exceeded forty inches.

ATMOSPHERIC PRESSURE.

A positive departure from the average mean atmospheric pressure was recorded throughout Canada in January. This was especially marked in Manitoba and the Northwest Territories, where the excess ranged between 0·24 of an inch at Winnipeg, Man., and Prince Albert, Sask., and 0·34 of an inch at Battleford, Sask.

LOW AREAS.

Twelve areas of low pressure were charted during the month, many of them being of pronounced energy; six first appeared in the northwestern portion of the continent, one in the Western States, one on the lower Californian coast, two in the region of the Gulf of Mexico, one off the Nova Scotian coast and one to the northward of Lake Superior.

The most noticeable of the areas were as follows:

No. 1.—Which apparently originated in the far Western States, developed greatly over the Middle Atlantic States and between the 3rd and 4th as it passed into and over the Maritime Provinces it was accompanied there by a heavy gale together with a heavy snowfall, the latter turning locally to sleet and rain.

No. 3.—A southwest area from Texas travelling into the Upper St. Lawrence district and thence to the Gulf of St. Lawrence causing on the 7th heavy gales from the Lake region to the Maritime Provinces together with heavy snowfalls in Ontario and parts of Quebec, the storm being especially heavy in the Ottawa Valley.

No. 5.—From the coast of Lower California across the Lower Lake region to the Maritime Provinces attended between the 12th and 13 by gales from Ontario to the Maritime Provinces together with heavy snow, sleet and rain in the former districts, moderately heavy snowfalls in Quebec and heavy snow in the Maritime Provinces.

Nos. 8 and 9.—The latter from the Gulf of Mexico, the former from the Canadian North-west united over the Middle Atlantic States whence the system passed to the Maritime Provinces. It caused between the 24th and 26th stormy conditions from Ontario to the Maritime Provinces, the snowfall being exceptionally heavy in the latter Provinces where in many instances for the time railway and nearly all kind of travel were completely interrupted.

No. 11.—An Atlantic area which skirted the Cape Breton coast on the 31st causing an unusually heavy snowfall over the Eastern portion of the Maritime Provinces.

HIGH AREAS.

Thirteen areas of high pressure were charted during the month which is a large number for any month, and at the same time many were of pronounced energy; nine first appeared in the far North-west and four in the North Pacific States. Four took the northerly course over Canada and the remainder passed to the Gulf States where in several instances they recurved northeastward and travelled over the states bordering the Atlantic Ocean.

No. 5.—With a pressure reduced to sea level of 31·02 inches on the 14th in Dakota and No. 11 with 31·14 inches on the 25th in Minnesota were the most energetic systems of the series.

The areas almost without exception were attended by very cold weather, hence the persistency of the extremely cold conditions nearly everywhere prevailing during the month.

WINDS.

In British Columbia on Vancouver Island and over the mainland the direction was chiefly northerly to easterly with six days of strong and eleven of fresh breezes and two gales.

In the North-west Territories the north and west directions predominated. There were six days with strong and eleven with fresh breezes and no gales.

In Manitoba the direction was largely northerly to westerly with fifteen days of strong and nine of fresh breezes and no gales.

In the Lake region the north and west directions were most in evidence. There were ten days with strong and three with fresh breezes and seven gales.

In the Ottawa and Upper St. Lawrence Valleys the north and west directions were paramount with twelve days of strong and seven of fresh breezes and five gales.

In the Lower St. Lawrence Valley and the Gulf of St. Lawrence the directions were mainly northerly and westerly with eight days of strong and nine of fresh breezes and six gales.

In the Maritime Provinces the northeasterly to northwesterly directions chiefly obtained. There were nine days with strong and six with fresh breezes and seven gales.

In these latter Provinces where in many localities winter navigation is pursued, the gales occurred on the 4th, 7th, 10th, 12, 19th, 25th, and 31st; many of the storms being of much violence. For the storm of the 19th stations in the Bay of Fundy and over the western portion of Nova Scotia were not warned and the storm of the 31st which did not extend to the western portion of the Maritime Provinces was also not warned. A warning issued to Bay of Fundy Stations and western Nova Scotia on the 27th was not justified by subsequent high winds, otherwise the warnings were eminently successful.

TEMPERATURE.

The temperature was a little above the average in Assiniboia, Western Manitoba parts of Saskatchewan and on Vancouver Island. Elsewhere in the Dominion it was below the average, especially from Lake Superior to Cape Breton, many localities recording a negative departure of from 5 to 6 degrees, and some few as much as 8 degrees.

The highest and Lowest temperatures in each Province during January, 1903, were :

British Columbia,	53° ·0 on 16th at Clayoquot,	—28° ·0 on 13th at Golden.
N. W. Territories,	53° ·6 on 3rd at Lethbridge,	—49° ·5 on 10th at Prince Albert.
Manitoba,	33° ·0 on 18th at Almasippi,	—46° ·0 on 10th at Hillsview.
Ontario,	51° ·0 on 1st at Cottam,	—47° ·0 on 14th at White River.
Quebec,	45° ·0 on 7th at Brome,	—41° ·5 on 24th at Chicoutimi.
New Brunswick,	49° ·7 on 8th at Grand Manan,	—39° ·0 on 15th at St. Stephen.
Nova Scotia,	50° ·0 on 8th at Windsor,	—30° ·8 on 15th at Parrsboro.
Prince Edward Island,	43° ·0 on 8th at Charlottetown,	—19° ·0 on 25th at Charlottetown.

PRECIPITATION.

The precipitation was largely above the average in nearly all portions of the Maritime Provinces. Chatham recording a positive departure of 2·8 inches, Fredericton and Sydney 2·6 and 2·8 inches respectively and Halifax 2·6 inches. In Quebec at Montreal the average precipitation was slightly exceeded, and at Chicoutimi a positive departure of 1·68 inches occurred, but in the Province generally it was very deficient, Quebec City giving a negative departure of 1·5 inches and Father Point 1 inch. In Ontario north from Lake Ontario to the Georgian Bay Region and eastward it was generally well above the average and elsewhere generally below, the western and southern counties especially showing a marked deficiency. From the Lake Superior District to the British Columbia Coast the precipitation was below the average except in one or two isolated places, noticeably Hillview, Man., with a positive departure of one inch, and Calgary which recorded a positive departure of half an inch. The deficiency, however, was not marked except at Coast stations, and on Vancouver Island, New Westminster giving a negative departure of 1·2 inches and Victoria 1·6 inches.

DEPTH OF SNOW ON GROUND.

At the close of the month the whole of the Dominion except a portion of British Columbia was covered with snow. In the Territories and Manitoba the depth apparently nowhere exceeded ten inches, and in Cariboo it was reported as only 18 inches. In the Peninsula of Ontario the depth of snow was also moderate, being in striking contrast to the conditions prevailing at the same time last year when the great depth of snow seriously hampered all kinds of travel. From the Georgian Bay Region north and east the amount was from 18 to over 40 inches, in Quebec from 24 to 49 inches, and in the Maritime Provinces from 26 to 46 inches, these amounts being unusually large for the latter Provinces

THICKNESS OF ICE.

North-west Territories and Manitoba.—Battleford, 22 inches; Medicine Hat, 30 inches; Swift Current, 30 inches; Minnedosa, 26 inches.

Ontario.—Port Arthur, 22 inches; White River, 22 inches; Southampton, 12 inches; Port Stanley, 16 inches; Kingston, 10 inches; Ottawa, 30 inches; Gravenhurst, 10 inches; Lakefield, 17 inches; Coldwater, 36 inches; Stratford, 18 inches; Woodstock, 20 inches; Port Burwell, 14 inches; Stony Creek, 12 inches.

Maritime Provinces.—Chatham, Yarmouth, Sydney and Charlottetown, 18 inches, Fredericton, 27 inches.

BRIGHT SUNSHINE.

The mean proportion of Bright Sunshine recorded during January was slightly deficient in Quebec and also locally to a small amount in Ontario, elsewhere in Canada an excess was recorded. The extremes of departure from the normal value were +21 per cent at Battleford, N. W. T., and −2 per cent at Lindsay, Ont.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
BRITISH COLUMBIA				in.	in.	in.	in.																																	
Victoria	48	21 123	19 85	30·10	30·52	29·67	0·85	44·0	+ 1·7	44	51·3	2	27·4	13	7·2			7	13	279	160	80	48	11	21	41	6	92	744	7·0	44·6	3 SW	3·31	1·67	0·06	18	12	0	0	2
Barkerville	53	2 121	35 4180	30·19	30·56	29·72	0·84	15·5	2·6	16	38·0	24	−16·0	13	13·8			5	9	0	0	0	0	3	0	0	0	59	62		6·0	26 S	2·00	0·58	0·50	6	23	0	0	—
Agassiz	49	14 121	31 52					35·1	+ 2·0	14	49·0	23	20·0	12	10·8			3	0	36	0	6	0	21	0	30	0	0	93		15·1	12 NW	5·16	1·62	0·93	11	17	0	0	0
Port Simpson	54	34 130	26 26	30·02	30·41	29·35	1·06	35·5	....		45·0	24	23·0	36	8·0																		2·21	−7·70	0·72	11	20	0	0	0
Revelstoke	51	0 118	6 1478					21·2			33·7	0	1	7·0	13	9·1																		3·20	—	0·85	10	21	0	0	0
Kamloops	50	41 120	29 1193																																					
Princeton	49	29 120	29 1650					18·9	+ 0·2	10	40·0	25	13·0	10	15·5																									
Pilot Bay	49	39 116	55 2000																														1·11	−0·03	0·28	8	23	0	0	0
Rivers Inlet	51	39 127	19 20	30·05	30·45	29·50	0·95	35·8	0·4	11	46·5	2	24·0	13	7·1	33·1	8	5	6	22	1	12	21	0	1	0	0	33	93	111	VII	11 E	8·75	3·26	2·21	11	15	0	0	2
Stuart's Lake	54	28 124	12 1800					6·2	3·8	11	36·9	2	7·6	1	13·2	1·6																			0·89	1·11	0·10	5	23	0	0	0
French Creek	49	20 124	36																																					
Coldstream	50	11 119	15 1216					26·2	+ 2·4	11	44·0	26	7·0	13	11·3																									
a Nanaimo	49	10 123	57	29·96	30·15	29·54	0·61	36·7			49·8	26	16·0	12	9·0	35·4	93	6	9	5	1	0	6	8	6	6	1	38	76	34	11·3	13 SE	5·57	—	1·43	18	13	0	0	5
Chilliwack	49	10 121	57 21	30·15	30·53	29·78	0·75	37·0			48·0	17	29·0	12	8·7	33·4	85	6	14	3	30	50	2	1	5	2	0	0	93				5·84	—	0·99	17	14	0	0	1
Port Bobs	50	32 128	3					36·7			50·0	2	24·0	12	8·6																		9·14	—	2·35	9	22	0	0	0
Midway	49	0 118	46 1800																																					
Enderby	50	32 119	7 1180																																					
Nicola Lake	50	9 120	39 2120					21·6	1·7	10	43·0	4	12·0	11	12·1																									
West Kootenay	49	20 117	50																														0·88	−0·05	0·25	6	25	0	0	0
Garry Point	49	21 123	17					36·9			49·0	23	18·0	12	10·0																									
Tobacco Plains	49	1 115	5 2300					22·3			41·0	26	9·9	11	11·8					3	2	37	1	5	0	12	3	30	93	5·6	18·7	3 SW	5·26	—	1·30	16	15	0	0	0
Vancouver	49	17 123	5 195																														1·80	—	0·50	15	15	0	0	0
New Westminster	49	13 122	54 330	30·12	30·52	29·77	0·75	36·6	+ 0·9	12	48·0	24	14·0	12	9·0			7	17	2	1	26	2	0	1	0	6	24	62		8·7	23 E	6·41	1·21	1·21	17	11	0	0	1
a Ladner	49	5 123	4					36·9			46·2	20	17·0	11	10·5																									
North Nicomen	49	12 122	2 50					37·4	+ 2·3	13	49·0	25	23·0	12	9·1																									
Quesnelle	52	59 122	30 1700					15·4	2·6	10	44·0	3	20·0	11	11·6																		4·37	—	1·50	14	17	0	0	0
Clayoquot	49	11 125	17 40					41·9			53·0	16	25·5	12	11·8																		7·28	1·14	1·11	11	15	0	0	0
Cranbrook	49	30 115	50 2900					18·2			42·0	26	20·0	11	18·5																		0·95	0·19	0·20	6	25	0	0	2
Massett	53	58 132	9 30					40·1			51·0	7	26·0	3	13·6																		13·79	—	1·11	16	15	0	0	0
Bullion	52	15 121	55 2775					46·1			51·0	7	26·0	3	13·6																		1·60	—	0·75	3	28	0	0	0
Bella Coola	52	10 126	51 150					27·9			44·0	21	23·0	13	13·4					10	20	12	6	0	2	6	6	0	62					1·70	—	0·50	8	23	0	0	0
Cowichan	48	25 123	42 170					27·9			38·0	8	15·0	9	8·4																		0·90	—	0·30	4	27	1	0	0
Nelson	49	29 117	21 1760					35·2			48·8	4	15·9	12	9·9																		2·06	—	1·15	6	25	0	0	0
Matsqui	49	7 122	16					28·1			47·0	25	10·0	12	8·2																		8·08	—	1·58	19	12	0	0	0
Okanagan Mission	49	52 119	29 1200					27·8			44·3	26	1·0	13	11·9																		2·13	—	0·50	13	18	0	0	0
Alberni	49	15 124	49					35·7			52·1	26	17·9	12	10·1																									
Kuper Island	48	51 123	38 40					38·0			49·5	2	21·9	12	9·2																		1·16	—	0·18	12	18	0	0	0
Cape Scott	50	48 128	27					38·9			50·0	1	21·0	31	9·2																		10·70	—	2·15	14	16	0	0	0
Glacier	51	11 117	29 1072																														6·99	—	1·08	18	13	0	0	1
Golden	53	16 116	55 2550					15·6			44·0	26	−28·0	13	21·1																		12·51	—	1·75	25	6	0	0	0
Spence's Bridge	50	25 121	30 760					25·8	+ 2·7	10	45·5	25	1·5	13	9·0																									
Bamfield	48	50 125	9	30·06	30·51	29·51	1·00	39·5			51·7	26	25·0	12	12·8	36·1	89	1	6	19	3	0	15	2	1	5	11	37	93				9·22	—	0·15	3	24	0	0	0
Big Creek	51	10 123	0					42·2			43·0	24	−22·0	13	21·3																		4·49	—	1·30	16	15	0	0	1
Nickel Plate	49	30 120	0 5400					20·6			41·0	27	−13·0	12	14·9																		0·23	—	0·30	1	27	0	0	3
Thetis Island								37·7			49·8	2	22·0	12	9·8																		1·29	—	0·21	13	18	0	0	3
Hedley								26·1			46·0	28	1·0	12	11·6																		7·32	—	1·86	20	11	0	0	5
Kitamaat								34·7			62·0	31	10·0	12	26·2																		0·45	—	0·20	4	27	0	0	3
Rossland	49	5 117	18 3400					24·9	—	2	39·0	26	5·2	13	7·6					26	0	0	0	1	0	0	0	4	31				2·40	—	0·40	7	24	0	0	0
N. W. TERRITORIES																																	3·95	—	0·62	15	16	0	0	5
Medicine Hat	50	1 110	37 2161	30·34	30·97	29·69	1·28	10·2	+ 0·4	21	49·0	2	−20·5	14	18·7			5	4	8	0	4	0	2	4	8	5	31	62		13·7	3 SW	0·70	+0·07	0·35	5	24	0	0	0
Edmonton	53	33 113	30 2158	30·32	30·91	29·65	1·26	6·2	− 0·7	22	42·0	17	−27·0	23	18·8			6	8	4	3	4	6	2	8	8	7	20	62		13·3	21 SE	0·50	−0·17	0·12	9	20	7	0	0
Swift Current	50	20 107	45 2439	30·39	30·96	29·66	1·30	6·2	1·1	19	46·0	3	−25·0	24	18·0			4	0	7	2	2	0	9	3	19	9	11	62		22·0	25 SW	0·24	−0·42	0·08	6	21	1	0	0
Qu'Appelle	50	30 103	47 2115	30·31	30·85	29·61	1·24	0·3	+ 0·6	22	38·0	4	−28·5	10	17·7			4	3	2	0	1	3	5	7	12	22	10	62		24·0	25 S	0·52	−0·08	0·26	5	25	3	0	1
Calgary	51	2 114	2 3389	30·34	30·88	29·76	1·12	10·0	1·9	21	46·0	2	−28·0	14	17·7			5	7	3	2	5	10	1	6	11	4	17	62		14·0	19 N	1·01	+0·55	0·50	4	26	0	0	0
Prince Albert	53	10 106	0 1432	30·31	30·88	29·71	1·17	4·3	+ 0·5	20	28·0	18	49·5	10	21·4			3	5	9	1	1	2	1	5	4	9	30	62		17·0	8 N	0·20	−0·67	0·10	2	28	2	0	0
Battleford	52	41 108	20 1620	30·41	31·03	29·82	1·21	1·6	− 0·7	11	36·0	17	−36·0	9	18·7			3	0	63	22	117	0	0	21	201	90	221	744	1·3	16·0	30 N	0·62	+0·16	0·40	3	5	2	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.																																	
ONTARIO.																																								
Owen Sound	44 31	80 56	597					16·3	− 3·5	24	41·0	1	− 13·0	25	15·3					15	15	5	8	20	16	7	7	0	93				1·42	− 0·42	0·65	16	15	0	0	0
Beatrice	45 8	79 20	806					8·1	− 4·8	28	39·0	1	− 23·5	29	29·6			6	11	1	0	0	12	5	10	1	21	40	93	1	IV	25 S W	5·00	+ 1·02	0·80	13	18	0	0	0
Coldwater	44 38	79 40	600					11·7	− 3·6	17	42·0	1	− 23·0	14	16·9																										
Gravenhurst	44 54	79 20	770					9·9	− 4·8	34	38·0	1	− 32·0	29	21·6			6	8	7	5	6	18	7	9	13	14	14	93	11	V	25 N	3·05	− 0·21	0·45	14	16	1	0	0
Haliburton	45 1	78 28						8·6	− 4·7	16	40·0	1	− 30·0	14	22·2																				3·38	+ 0·30	0·50	17	14	0	0	0
*Point Clark	44 5	81 44	595					19·3	− 3·7	31	40·0	19	− 4·0	30				1	6	11	2	16	3	11	4	40	3	0	93	V	X	21 N	3·30	+ 0·06	0·40	13	18	0	0	1
Birnam	43 2	81 56	600					17·2	− 3·3	22	42·0	1	− 9·5	29	12·1					8	3	6		5	9	9	19	2	62				2·00	+ 0·58	0·50	11	20	0	0	0
London	42 59	81 13	808	30·17	30·73	29·41	1·29	17·4	− 1·3	21	4·0	1	− 6·0	29	11·1	11·8	85	6	9	1	3	5	2	26	18	28	0	93	11	III	15 S W	3·16	− 0·49	1·31	15	9	0	0	1
Port Stanley	42 40	81 13	592	30·08	30·74	29·50	1·24	19·4	− 3·5	31	40·3	32	− 7·2	29	16·4			7	11	83	131	0	0	0	272	206	5	744	13·8	28·7	27 S W	2·83	− 0·16	0·40	23	7	0	0	3
Woodstock	43 8	80 47	980	30·16	30·74	29·44	1·30	17·4	− 3·2	31	39·5	12	− 2·0	26	13·8	13·5	81	6	8	15	62	68	63	6	182	151	109	8	694	12·7	24·0	15 S W	2·70	− 0·16	0·40	14	17	0	0	1
Port Dover	42 47	80 13	635					17·3	− 5·3	29	45·4	1	− 6·4	29	11·3																				3·98	+ 0·80	0·73	21	10	0	0	0
Pelee Island	41 50	82 38	585					17·3	− 7·3	25	39·0	1	− 9·0	23	13·1																				1·37	− 1·31	1·07	3	28	0	0	0
Paris	43 12	80 25	810					18·4	− 1·6	14	48·0	1	− 8·0	26	23·6																				0·97	− 1·86	0·25	6	25	0	0	0
Biscotasing	47 3	82 4																																						
Calvin	46 15	78 48						1·6	− 5·1	10	37·8	1	− 31·8	5	21·9																				2·67	+ 0·38	0·70	11	18	3	0	0
Agincourt	43 47	79 16						14·8	− 1·9	12	42·0	1	− 10·0	28	16·7																				1·45	− 0·50		11	20	0	0	2
North Bay	46 31	79 30																																						
Hamilton	43 16	79 54	303								42·5	20	− 5·0	29																										
Port Hope	43 56	78 20						13·5	− 7		39·0	1	− 17·0	28	18·9																				2·80	− 0·91	1·00	13	18	0	0	0
Kinmount	44 45	78 38						7·1	− 8		43·0	8	− 34·0	29	29·1																				1·75	− 1·00	7·24	0	0	0	0	0
Cockburn Island	45 57	83 18	610					9·9	− 8		39·0	1	− 12·0	27	17·1					5	4	6	3	8	7	12	9	8	62				0·90	− 0·30	1·27	0	0	0	0	0
Chatham	42 23	82 12	595					20·0	+ 3·3	19	48·0	1	− 3·0	29	11·4																				2·43	− 0·33	0·90	6	25	0	0	0
Meaford	44 37	80 37						16·3	− 6		41·0	1	− 9·0	29	13·6					12	6	0	5	1	11	9	15	0	62				1·99	− 0·55	0·73	8	8	0	0	0
Listowel	43 44	80 58																																						
Bruce Mines	46 18	83 55	595					9·5	− 7		38·0	1	− 20·0	26	17·1																				1·10	− 0·59	0·65	6	25	0	0	0
Rat Portage	49 48	94 32	1102					3·1	− 6		31·1	1	− 31·6	10	18·7																				0·45	− 0·15	1·30	3	0	0	3	0
Dunnville	42 54	79 39																																						
Sturgeon Falls	46 46	79 54																																						
Uplands	45 48	79 25						3·9	− 6·6	17	35·1	1	− 28·5	11	25·0					13	0	7	0	13	1	23	0	5	62				1·30	− 0·39	0·80	12	19	0	0	0
Toronto	43 40	79 24	350	30·15	30·37	29·39	0·98	17·8	− 1·8	61	42·2	1	− 7·1	26	11·9	15·7	81	7	7	160	63	27	8	76	194	106	109	1	744	13·5	26·2	25 N W	3·27	+ 0·39	0·66	18	9	0	0	0
Welland	42 59	79 17	125																																					
Peterborough	44 17	78 19	722					10·4	− 6·4	30	38·0	1	− 20·0	29	19·7																				3·55	+ 1·13	1·40	10	20	0	0	0
Lindsay	44 20	78 45	872	30·12	30·73	29·35	1·38	12·3	− 2·9	21	38·6	1	− 16·0	29	15·4			7	15	10	2	12	3	2	17	6	19	22	93	11	IV	6 S	3·82	+ 0·30	0·70	15	11	0	0	0
Deseronto	44 11	77 1	261					11·2	− 1·1	21	39·1	1	− 13·0	15	20·5			6	6	5	9	18	3	2	11	33	7	2	93	8·8	45·3	10 W	1·88	+ 1·10	1·20	21	10	0	0	1
Lakefield	44 25	78 15									41·0		− 17·0	29																										
Ridgetown	42 30	81 53	657																																					
Kingston	44 13	76 29	285	30·11	30·79	29·27	1·52	12·1	− 6·0	31	36·2	1	− 19·0	13	5·9	29	16·1			7	13	7	15	3	0	1	12	19	5	0	62		21·2	19 S W	2·36	− 0·93	0·58	20	1	0	0	1
Clontarf	45 23	77 9						6·3	− 5·7	18	40·0	1	− 27·0	5	21·2																				1·18	− 2·13	0·40	10	18	0	0	0
Ottawa	45 26	75 42	290	30·11	30·77	29·25	1·52	7·4	− 3·2	22	39·0	1	− 11·0	5	16·7			6	8	5	12	2	2	0	6	21	12	2	62		IV	6 N	3·29	− 0·27	1·92	10	15	0	0	0
Rockliffe	46 9	78 6	557	30·13	30·78	29·17	1·61	− 0·3	7·1	28	42·0	2	− 40·0	3	26·1			6	10	1	2	1	0	3	3	3	3	43	62		III	25 N E	2·36	− 1·09	0·80	15	16	0	0	0
Cartier	46 40	80 50	1198																																					
*Sarnia	42 59	82 24	586					19·2	− 3·2	10	41·0	1	− 3·0	30						9	0	3	1	5	21	11	2	35	93				1·15	− 0·72	0·3		5	26	0	0	0
Stratford	43 23	81 0	1191					16·0	− 3·1	38	42·0	1	− 7·0	29	14·4																				2·04	− 1·18	0·87	8	23	0	0	0
Lucknow	43 56	81 30						16·1	− 1·7	18	37·1	12	− 7·0	30	12·8					1	1	1	6	1	3	9	6	31	62				3·50	− 0·80	0·40	22	9	0	0	2
White River	48 35	85 16	1252	30·19	30·90	29·64	1·26	5·4	− 6·9	16	31·5	1	− 47·0	14	32·2			5	6	47	9	23	41	32	46	164	91	291	744	3·8	12·0	24 N W	1·41	− 0·30	0·25	14	12	1	0	0
Port Arthur	48 27	89 12	611	30·21	30·71	29·58	1·13	1·4	− 0·3	25	42·0	1	− 21·0	10	20·2			4	4	19	69	0	0	4	103	252	174	123	744	1·3	11·3	5 N E	0·22	− 0·58	0·18	2	27	0	0	0
Stony Creek	43 13	79 45	292					20·7	− 3·5	21	43·0	1	− 3·0	29	14·1			6	7	13	1	3	5	11	30	22	3	5	93	IV	IX	25 N	3·05	− 1·17	1·10	11	18	0	0	0
*Otonabee	44 20	78 18	674					13·3			38·0	1	− 11·0	26						2	7	20	0	0	21	22	15	0	90				2·25	− 1·70	5·26	0	0	1	0	0
Windsor	42 20	83 4	625					19·7	− 4·3	28	45·5	1	− 2·0	29	14·8																				2·11	− 0·31	0·99	7	4	0	0	0
Alton	43 51	80 5	1250					13·3	− 5·1	19	38·1	1	− 11·8	26	18·6			5	6	20	2	10	1	8	15	31	3	0	90	11	V	25 N	1·92	− 0·42	0·40	12	19	0	0	3
Guelph	43 33	80 16						15·1	− 1·5	17	39·0	1	− 3·5	26	12·5					9	1	5	0	2	17	19	1	1	58				0·95	− 1·25	0·20	11	19	0	0	2
*North Bruce	44 23	81 25						16·8	− 5·0	16	36·0	1	− 7·0	30						8	22	0	3	15	26	7	2	0	93				3·35	− 0·18	0·40	21	7	0	0	2
Collingwood	44 30	80 15	595					16·8	− 3·6	13	42·0	1	− 3·0	31	11·4																										3
Rocklyn	44 28	80 36	1339																																				0	2
Bala	45 0	79 30	740					10·2	− 1·0	20	38·0	1	− 26·0	29	18·1																				1·05	− 0·08	0·60	15	16	0	0	0
Orillia	44 31	79 21	775					13·4	− 2·5	11	40·0	2	− 15·0	29	16·2																				2·90	− 0·27	0·70	11	8	0	0	0

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OBSERVATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING JANUARY, 1905.

STATION	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Royal Oak	1·83	15	11	1·23	26	6·0	1	6·0	13	
Goldstream Lake	7·76	16	11	1·85	1	16·0	1	16·0	13	
Sooke Lake	7·77	11	15	1·16	2	12·3	2	7·3	14	14 First ice on lake.
Coquitlam	7·04	11	20	1·61	1					Hard frost 9, 10, 11, 12.
Port Essington	2·75	13	18	0·31	2	3·3	3	2·0	1	
Naas Harbour			29			7·0	2	1·0	2	
Nanaimo	7·17	12	18	2·17	2	7·0	1	7·0	13	
Albermi	8·21	11	17	1·79	2	1·7	3	3·5	3	
N. W. TERRITORIES—										
Bruederheim			26			1·8	5	0·5	9	
Lacombe			23			7·4	8	1·5	27	
Magrath			25			10·2	6	1·0	27	
Victoria			21			3·5	10	1·0	9	21 Blizzard.
Regina			27			3·3	1	3·0	1	Aurora 31.
Innisfail			20			9·5	11	3·3	29	
Stirling			24			16·5	6	12·0	27–8	
Beaver Hills, W			25			2·9	6	1·0	27–8	Aurora 1, 31.
Dirt Hills			26			1·5	5	1·0	7	
Beaver Hills			29			1·5	2	1·0	30	
MANITOBA—										
Rapid City			16			11·6	7	6·0	4	Aurora 5, 11, 31.
Gretna			29			5·3	2	5·3	4–5	
Norquay			25			8·3	6	3·0	5	10. 45 below zero.
Belmont			28				3			
Deloraine			28			2·7	3	1·3	4	
ONTARIO—										
Montague			26			18·0	5	13·0	7	
Dutton			26			4·5	5	2·0	6	
Wyoming			22			21·0	9	6·0	25	
Arden	0·54	2	22	0·52	19	33·0	8	18·0	7	
Midland			20			24·8	11	3·5	6	
Parma			25			23·5	6	14·0	7	7. The greatest storm for years.
Aurora			21			15·5	7	5·8	7	
Oliver's Ferry			26			25·0	5	18·0	6–7	
Smiths Falls	0·70	2	24	0·62	20	29·0	6	18·0	6–7	
Scarboro	R		19			20·9	12	6·0	6	
Princeton	1·54	5	14	1·26	12	30·5	14	6·0	6–7	
Uxbridge	0·24	2	17	0·19	11	27·5	13	5·0	7	
Georgetown	0·78	2	10	0·74	12	22·8	19	4·9	24	Aurora 3.
Lansdowne	0·92	1	25	0·92	11	16·0	5	8·0	8	
Croydon	0·05	1	21	0·05	19	33·5	6	30·0	6	
Jermyn			18			27·0	6	12·0	7	
Emsdale			16			29·5	14	4·5	11	
Wooler	0·26	1	24	0·26	1	28·0	6	17·0	6–7	
Orangeville			18			26·2	13	6·5	12	
Westminster	0·26	2	24	0·26	18–19	19·0	5	5·0	11	
Ennismore			27			16·0	4	10·0	7	
Sydenham	0·12	1	24	0·12	12	15·0	6	15·0	6	
Westport			19			46·2	12	12·3	7	
Ursa			17			50·0	14	12·0	6	
Goderich			20			25·0	11	5·0	26	
Lion's Head	0·02	1	17	0·02	19	24·5	12	4·0	9	
Wiarton			5			22·0	11	4·5	15	
Deer Park	0·04	1	19	0·04	18	23·3	12	8·7	7	
NEW BRUNSWICK—										
Point Escuminac	0·05	2	22	0·05	8	29·1	7	8·3	26	
NOVA SCOTIA—										
Port Morien	1·49	4	23	0·70	4	28·0	4	17·0	31	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JANUARY, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria				0·02	0·1	0·28	0·30	0·32	0·37	0·32	0·34	0·11	0·00			
Nanaimo				0·02	0·05	0·22	0·32	0·33	0·35	0·35	0·37	0·22	0·00			
Agassiz				0·00	0·12	0·35	0·38	0·36	0·35	0·31	0·19	0·03	0·01			
Battleford				0·20	0·51	0·60	0·57	0·66	0·65	0·63	0·57	0·30	0·02			
Indian Head				0·00	0·10	0·21	0·36	0·51	0·62	0·61	0·55	0·19	0·00			
Brandon				0·00	0·07	0·39	0·54	0·62	0·63	0·57	0·53	0·48	0·03			
Winnipeg				0·03	0·38	0·62	0·70	0·71	0·66	0·58	0·54	0·28	0·00			
Woodstock				0·03	0·21	0·28	0·35	0·40	0·43	0·32	0·33	0·25	0·08			
Toronto				0·00	0·15	0·27	0·33	0·40	0·37	0·41	0·31	0·35	0·13			
Lindsay					0·13	0·26	0·36	0·30	0·29	0·28	0·28	0·23	0·12	0·03		
Gravenhurst				0·08	0·26	0·35	0·39	0·38	0·44	0·44	0·43	0·35	0·21	0·11		
Kingston				0·07	0·24	0·31	0·32	0·36	0·38	0·35	0·34	0·30	0·05			
Ottawa				0·00	0·08	0·20	0·29	0·48	0·44	0·33	0·37	0·32	0·05			
Montreal				0·00	0·05	0·23	0·35	0·44	0·46	0·48	0·37	0·17	0·01			
Quebec				0·01	0·24	0·35	0·53	0·50	0·52	0·49	0·45	0·41	0·05			
Fredericton				0·06	0·29	0·48	0·59	0·63	0·65	0·60	0·59	0·50	0·11			

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·25	0·25	0·24	0·57	0·57	0·45	0·53	0·29	0·28	0·24	0·36	0·29	0·28	0·33	0·39	0·49
Difference from average	+0·06	—	+0·05	+0·21	+0·08	+0·05	+0·09	+0·09	+0·02	−0·02	-	+0·04	+0·01	−0·01	—	+0·09
Maximum daily amount	0·86	0·84	0·82	1·00	0·80	0·86	0·89	0·91	0·88	0·93	0·98	0·93	0·84	0·86	0·89	0·90
Date	31	10	7	26	21	29	21	30	28	13	26	11	26	13	13	9
No. of days completely clouded	12	16	16	0	3	5	1	12	13	14	12	13	8	9	7	7

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Minnedosa, IV.

2. Treherne.

3. Georgetown, IV ; Rat Portage, IV ; Albion, IV : Threehills Creek, IV : Haileybury III.

4. Beaver Hills, W., III ; Rat Portage, II ; Savanne, Aweme, III ; Rosthern, IV ; Edmonton, III ; Albion, III ; Gravenhurst, IV ; Threehills Creek, IV ; Haileybury III.

5. Rapid City, Calvin, Bowsman, IV ; Aweme, III ; Hillsdown, IV ; Rosthern, IV ; Gray Hill, IV ; Grand Manan, IV ; Father Point, II ; Quebec, III; Edmonton, IV ; White River, II ; St. Agathe, Threehills Creek, III ; Haileybury I.

6. Edmonton, IV; Qu'Appelle, Minnedosa, III: Albion, III.

7. Gray Hill, IV: Edmonton, IV; Albion, IV.

9. Rapid City, Bowsman, IV; Treherne, Aweme, III; Hillview, IV; Rosthern, III; Albion, IV.

10. Cartwright, *strong;* Aweme, IV; Rosthern, III; Edmonton, IV ; Haileybury III.

11. Minnedosa, III.

12. Treherne, Aweme, IV; Gray Hill, IV.

14. Montreal, Rapid City, Chicoutimi, Bowsman, IV ; Rosthern, II; Perce, Grand Manan, IV ; Quebec, IV; Albion, III ; Haileybury III.

15. Rosthern, II; Minnedosa, IV.

16. Rapid City, Rat Portage, I ; Bowsman, IV; Oakbank, Aweme, I; Rosthern, I: Regina, Swift Current, Battleford, II; Albion, II; Berens River.

17. Edmonton, III; Prince Albert, I; Minnedosa, III.

18. Prince Albert, I.

22. Bullion.

25. Albion, IV ; Haileybury III.

27. Rapid City ; Haileybury IV.

28. Morden, Aweme, IV; Rosthern, II ; Haileybury IV.

29. Rosthern, IV; Gray Hill, IV; Qu'Appelle, IV.

30. Savanne, Rosthern, III.

31. Victoria (Alta.), Beaver Hills W., III ; Rapid City, Savanne, Bowsman, IV ; Aweme, III ; Hillsdown, IV; Rosthern, II; Gray Hill, IV; Edmonton, III ; Battleford, I ; Qu'Appelle, III ; Minnedosa, Albion, III ; Threehills Creek, IV.

FORECASTS FOR JANUARY, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1102. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	79	73	1	5	93·0
Lake Superior	103	82	11	10	85·0
Lower Lake Region	117	89	15	13	82·5
Georgian Bay	117	87	18	12	82·1
Ottawa Valley	115	85	15	15	80·4
Upper St. Lawrence	115	82	25	8	82·2
Lower St. Lawrence	108	88	13	7	87·5
Gulf	110	93	8	9	88·2
Maritime Provinces, West	119	95	16	8	86·6
Maritime Provinces, East	119	92	18	9	84·9
Total	1102	866	140	96	84·5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
27th February, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

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Monthly Weather Review.

VOL. XXIX. FEBRUARY, 1905.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

Over the lower mainland and islands the weather continued comparatively cold until the 19th, when it became quite mild and remained so to the end of the month. The precipitation was unusually light and there was much bright sunshine. Over the Upper Mainland the dates of temperature changes were similar to those further westward, but the weather though exceedingly bright and dry was quite cold. On the 28th spring flowers were to be seen in many districts in the western portion of the province.

The weather in the North-West Territories continued cold to the 13th when there was a marked rise in the temperature and it remained mild to the end of the month. On or about the 22nd the temperature had risen above 50° at some places and at a few stations it continued so to the 28th. Bright sunshine exceeded the average considerably and the precipitation was quite light. By the end of the month the snow had melted, the prairies being quite bare, and there were indications of an early spring.

In Manitoba the weather conditions were quite similar to conditions in the Territories, the temperature at night, however, was quite low up to and including the 18th. On or about the 23rd 50° was exceeded at some places, but the weather was not generally as mild as in the Territories. Cloudless skies prevailed and there was comparatively little precipitation. Although patches of snow could be seen at the end of the month, the ground was practically bare.

The weather in Ontario was quite cold from the 1st to the 19th, and the mean temperature was well below the average. On the 20th it turned mild and although the nights were cold the days continued mild to the 28th. Bright sunshine somewhat exceeded the average in western districts, whilst in the eastern portion of the province the excess was considerable. Falls of snow were frequent from the 6th to 17th, but they were generally light, and, excepting at a few places in northern districts, the total precipitation was below the average. On the 28th the depth of snow on the ground varied between 18 and 30 inches and it was much drifted by frequent high winds.

In the Province of Quebec the weather was unusually cold, and the temperature, though high on or about the 10th, was generally quite low up to about the 20th when somewhat milder weather followed and continued to the 28th. Throughout the month there was much bright sunshine and the precipitation, though excessive in the extreme western portion of the province, was light elsewhere. The heaviest falls of snow occured in most places on or about the 7th, 13th and 20th, and on the 28th the depth ranged from 26 to 42 inches.

The weather in New Brunswick was exceedingly cold, excepting on or about the 13th, 17th, 20th, 21st and 26th to 28th when it was comparatively mild. In most districts it was unusually fine and the precipitation was somewhat light, but at a few places the snowfall exceeded the average, and throughout the province it was much drifted by high winds. A heavy gale occurred on the 11th, when a velocity of fifty miles per hour was registered at St. John.

In Nova Scotia the weather conditions were similar to conditions in New Brunswick, it being exceedingly cold during the greater portion of the month. On the 13th and 14th the temperature rose well above the freezing point and it was comparatively mild during the day from the 16th to 28th, but the nights were cold and the mean of the month was from 2° to 6° below the average. The precipita-

tion varied with the district, but with a few local exceptions it did not depart much from the average; nevertheless, owing to the accumulation of snow the depth was unusual, and owing to high winds it was much drifted, causing considerable loss by obstruction to railway traffic.

The weather in Prince Edward Island was exceptionally cold and stormy, and although the temperature rose above 20° almost every day after the 7th, and 30° was exceeded on the 13th, 18th, 21st and 26th to 28th the nights were exceedingly cold. Falls of snow were frequent, and it being much drifted by high winds, traffic of all description was interrupted causing considerable damage.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure exceeded the average throughout Canada, except in Nova Scotia where slightly subnormal values occurred. The positive departures were fairly large from the North-West Territories to Ontario, reaching 0·2 of an inch at Banff, Alta., and 0·15 of an inch at White River, Ont.

HIGH AREAS.

A great number of areas of high barometric pressure traversed the Continent during February. Many of these were quite pronounced, and were accompanied by severe cold waves, especially during the first half of the month.

During the first fourteen days, when five areas crossed the Continent, the course assumed was almost invariably from the North-West Territories over the Great Lakes and across the Maritime Provinces. Throughout the latter half of the month, however, the path followed was in most cases from British Columbia and Washington Territory to the Gulf of Mexico, and in some few cases, thence recurved north-eastward. Two areas also passed across the Dominion of Canada to the northward of the Lake Region.

Some extremely high barometric readings were recorded during the presence of these anti-cyclonic systems. Area No. 1, which was a continuation of No. 13 of January, had a maximum barometer reading of 30·98 inches.

LOW AREAS.

The feature of the February cyclonic systems was their rapid development when approaching the Maritime Provinces, the maximum intensity occurring in nearly in all cases, in that region, and in consequence strong winds and gales with heavy precipitation were of frequent occurrence there.

During the first two weeks of the month, areas of low barometric pressure were comparatively few, but in most cases of much importance. Throughout the remainder of the month, however, the movements became more rapid, and area after area followed one another in quick succession, but not over half of them were important.

The majority of the areas passed across the Continent from the North-West Territories over the Lakes to the Maritime Provinces, but a few assumed a course from the Middle Pacific States to the Atlantic and thence northeastward up the Coast and over or south of the Maritime Provinces. No. XI, which belonged to the latter class, had a minimum barometer reading of about 28·90 inches, while crossing the Gulf of St. Lawrence.

WINDS.

In British Columbia on Vancouver Island and over the mainland the direction was largely variable, but favoring somewhat the easterly. There were two gales experienced on land, but more off the coasts. There were besides five days with strong and twelve with fresh breezes.

In the North-West Territories the south and west directions predominated. There were nine days with strong and sixteen with fresh breezes and once a gale was experienced generally.

In Manitoba no one direction was particularly general although the westerly was perhaps the most in evidence. There were nine days with strong and eleven with fresh breezes and two gales.

In the Lake Region the direction was largely between the north and west. There were ten days with strong and nine with fresh breezes and six gales, none of the latter, however, were very heavy.

In the Ottawa and Upper St. Lawrence Valleys the north and west directions likewise predominated. There were twelve days with strong and ten with fresh breezes, but few gales.

In the Lower St. Lawrence Valley and the Gulf the directions were chiefly northerly and westerly. There were fourteen days with strong and five with fresh breezes, also six gales.

In the Maritime Provinces the north and west directions also prevailed most generally. There were eight days with strong and eight with fresh breezes as well as eight gales, several of the latter being of considerable duration. The gales occurred on the 1st, 7th, 11th, 13th, 16th, 18th, 23rd and 27th. The gale of the 1st was a continuation of the storm which set in on the 31st of January.

The gales in the Maritime Provinces, where in many localities winter navigation is pursued, were satisfactorily warned, except those occurring on the 1st, 18th and 27th.

TEMPERATURE.

The mean temperature of February was above the average in Manitoba and the North-West Territories and in parts of British Columbia, and was below average from the district of Algoma to the Maritime Provinces. The positive departures in the North-West Territories ranged from 1° at Calgary to 4° at Edmonton and 6° at Prince Albert and Qu'Appelle, and were in strong contrast to the conditions of February, 1904, in which month the departure from average were all negative, ranging from 6° in Manitoba to as much as 15° in Alberta. In the Georgian Bay Region the mean was about 4° below average and in Southern Ontario it was 6° below. In Quebec it ranged between 3° and 5° below, and in the Maritime Provinces between 2° and 6° below.

The highest and Lowest temperatures in each Province during February, 1905, were :

British Columbia,	63° ·1 on 16th at Alberni,	—41° ·1 on 10th at Stuart's Lake.
N. W. Territories,	64° ·0 on 28th at Medicine Hat,	—53° ·0 on 2nd at Gleichen & Kneehill.
Manitoba,	51° ·5 on 27th at Minnedosa.	—44° ·0 on 2nd at Bowsman,
Ontario,	65° ·0 on 28th at Paris,	—44° ·0 on 11th at White River.
Quebec,	36° ·9 on 20th at Sherbrooke,	—33° ·5 on 16th at Chicoutimi.
New Brunswick,	44° ·7 on 13th at Grand Manan,	—25° ·5 on 20th at St. Stephen.
Nova Scotia,	42° ·0 on 13th at Wolfville,	—16° ·8 on 20th at Parrsboro.
Prince Edward Island.	40° ·0 on 26th at Summerside,	—15° ·1 on 6th at Summerside.

PRECIPITATION.

The precipitation was less than average throughout the Dominion except near Montreal and in Quebec, Eastern Nova Scotia and Prince Edward Island. In the Territories and Manitoba the total for the month was but a few inches of snow. In Ontario and Quebec the precipitation was also almost wholly in the form of snow, of which the total fall was not heavy, averaging between 12 and 23 inches, except quite locally over small districts, where there were moderately heavy falls.

In the Maritime Provinces the snowfall was heavy in Nova Scotia and Prince Edward Island and was quite equal to average in New Brunswick.

DEPTH OF SNOW AND THICKNESS OF ICE.

At the close of the month Manitoba and the Territories were bare of snow with the exception of a very small amount in some of the more northern and wooded districts. From Lake Superior eastward the Dominion was snow covered. In Ontario the depth varied very generally between 18 and 30 inches with more in small scattered districts on the higher lands and less in the Niagara Peninsula. In Quebec the depth ranged from about 26 to 42 inches, and in the Maritime Provinces the general depth was even greater, and as much as 50 inches on the level was reported from Charlottetown.

Thickness of ice is reported as follows :—Battleford, 12 inches ; Minnedosa, 24 inches ; White River, 24 inches ; Southampton, 18 inches ; Port Stanley, 22 inches ; Kingston, 20 inches ; Ottawa, 30 inches ; Lakefield, 21 inches ; Sutton, 29 inches ; Georgetown, 22 inches ; Owen Sound, 18 inches; Arden, 21 inches ; Midland, 28 inches ; Meaford, 16 inches ; Port Burwell, 22 inches ; Alton, 24 inches ; Gravenhurst, 28 inches ; Woodstock, 23 inches ; Chatham, N.B., 21 inches ; Yarmouth, N. S., 18 inches ; Sydney, N.S., 24 inches ; Charlottetown, 14 inches.

BRIGHT SUNSHINE.

The amount of Bright Sunshine recorded in Canada during February exceeded the normal value in all districts. The excess was especially noticeable from Western Manitoba to the Pacific Coast, ranging from 13 p.c. at Indian Head and Battleford, N.W.T. to 25 p.c. at Victoria, B.C.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of aurorae.	No. of thunder storms.	No. of fogs.
				in.	in.	in.	in.																																
BRITISH COLUMBIA																																							
Victoria	48 21	123 19	85	30·01	30·47	29·59	0·88	41·7	+ 2·2		11 56 4		26	22 7		12 8·9			4	9	181	161	67	15	9	39	57	6	101	672	6·6	20 8	10 S E	2 27	1 44	1 00	10	15	0	0	0
Barkerville	53 2	121 35	4180	30·01	30·48	29·51	0·97	20·4	+ 1·1		17 11·0		27	32·0		10 16·3			5	7	0	0	0	0	4	0	0	0	52	56		10 0	21 8	1 76	0 92	0 80	6	19	1	0	0
Agassiz	49 11	121 31	52					35·0	1 8	11	53·0		27	13 0		11 11·8			3	0	39	0	0	0	27	0	18	0	0	84	1 9			1 28	1 11	0 82	13	15	0	0	0
Port Simpson	54 34	130 26	26	29·90	30 11	29 00	1·11	36 6	+ 2 7	18	53·0		25	20 0		11 10·3			6	10	4	5	3	2	7	1	7	8	19	56		11 3	20 8	5 59	1 56	0 85	17	10	0	0	0
Revelstoke	51 0	118 6	1476					18 3			3 50·0		26	15 0		11 19·0																	4 83		0 89	11	17	0	0	0
Kamloops	50 44	120 29	1193																		8	29	30	97	19	0	0	7	182	672										
Princeton	49 29	120 29	1650					17 8	— 6 6	10	52·0		25	32		11 28 2																	0 26	— 0 61	0 20	5	23	0	0	0
Pilot Bay	49 39	116 55	2000																																				
Rivers Inlet	51 39	127 19	20	29 99	30 18	29 30	1 18	36·0	+ 0 7	11	50 0		19	20 0		16 9·7	32 8	88	61	10	12	0	8	25	0	2	2	0	35	81	11	18	3 1	8 22		1 25	15	13	0	0	
Stuart's Lake	54 28	124 12	1800					9 2	1 6	11	49·0		28	41 1		10 27·1																	0 20	0 41	0 15	7	18	0	1	0
Coldstream	50 14	119 15	1246					22·8	5 1		10 50·0		28	10·0		11 17 6																	0 25	— 0 62	0 10	5	23	0	0	0
a Nanaimo	49 10	123 57		29 92	30 31	29 40	0 91	37·9			6 55·3		25	13 1		2 15 1	36·1	87	5	5	7	1	2	6	7	12	5	3	38	84	5·6	25 0	7 N W	3 22		1 33	11	13	0	0	1
Chilliwack	49 10	121 57	21	30·08	30 51	29 64	1 0 87	38 1			6 62·1		25	14·0		11 15 1	32 9	85	5	6	6	26	35	2	3	5	1	3	0	81				5 00		0 98	13	14	0	1	1
Port Bobs	50 32	128 3						38·3			9 51·0		27	24 0		11 9·1																	12 56		1 92	15	13	0	0	0
Midway	49 0	118 46	1800																																				
Enderby	50 32	119 7	1180																																				
Nicola Lake	50 9	120 39	2120					17 4	6 1	10	51·5		26	21·0		11 17·9																	0 21	0 13	0 11	3	25	0	1	0
West Kootenay	49 20	117 50																																					
Garry Point	49 21	123 17						37·1	1 2	10	54·0		28	16 0		12 11·2			5	12	1	8	21	5	3	1	10	4	31	84	6·5	35 0	7 W	3 23	1 49	0 68	10	18	0	0	0
Tobacco Plains	49 1	115 5	2300					13·3	13·2	10	59·1		26	37 0		11 20·7																	0 65	0 51	0 20	4	23	0	0	0
Vancouver	49 17	123 5	195																																				
New Westminster	49 13	122 54	330	30·05	30 49	29 62	0 87	38·3	0·5	11	60·1		26	12 8		11 15·0			5	12	0	5	19	3	2	9	0	2	16	56		12 1	7 W	4 21	3 73	1 37	11	16	0	0	0
a Ladner	49 5	123 4						37·0			8 57·0		28	12 0		11 10·3																	2 16		0 60	7	21	0	1	0
North Nicomen	49 12	122 2	59					38·8	1 1·0	13	61·0		26	13·0		11 11·1																	5 60	3 33	1 18	13	15	0	0	0
Quesnelle	52 59	122 30	1700					13·8			9 54·0		27	30 0		10 22·5																	1 05		0 39	6	22	1	2	0
Clayoquot	49 14	125 47	40					11·1			7 60·0		18	23 5		11 15·5																	14 10		3 50	13	15	0	0	0
Cranbrook	49 30	115 50	2800					13·7			5 52·0		27	35 0		11 24 6																	1 85		1 15	3	25	1	0	0
Massett	53 58	132 9	30					39 2			7 51·0		28	22·0		2 15 4					16	8	0	24	0	2	5	1	0	56				2 15		0 37	15	13	0	0	0
Bullion	52 15	121 55	2775					19 6			8 49·0		27	23 0		10 19·0																	1 20		0 40	5	23	0	0	0
Bella Coola	52 10	126 54	150					30 0			7 50·0		27	7 0		12 12·3																	2 85		0 76	9	19	0	0	0
Cowichan	48 25	123 42	170					37 0			2 57·9		26	9 1		11 17·9																	5 01		1 26	13	14	0	0	0
Nelson	49 29	117 21	1760					25·2			4 51·0		25	6 0		10 15·0																	1 83		0 60	13	15	0	0	0
Matsqui	49 7	122 16																																					
Okanagan Mission	49 52	119 29	1200					19 6			5 49·8		23	5 9		11 16 6																	0 26		0 06	7	21	0	0	0
Alberni	49 15	124 49						42·5	5 3	10	63·1		16	11 9		11 15·1																	10 11	0 63	2 61	12	16	0	1	0
Kuper Island	48 51	123 38	10																																		0	0	0
Cape Scott	50 48	128 27						39·8			7 55·5		26	23·0		10 16·2																	11 72		1 75	16	12	0	0	0
Glacier	51 14	117 29	4072					11·2			9 37·0		27	21·0		11 13·1																	2 40		0 40	14	14	0	0	0
Golden	51 16	116 55	2550					10·8			3 50·0		21	37·0		11 29·1																						0	0	1
Spence's Bridge	50 25	121 30	760					31·0	6 0	11	59·0		26	5·0		11 16·1																	0 10	0 60	0 05	3	24	0	0	0
Bamfield	48 50	125 9		29 99	30 42	29 46	0 96	39·2			3 57·9		17	23·0		11 14·0	35 0	83	1	8	20	2	1	18	1	2	10	0	30	81				11 36		1 81	15	13	0	0	0
Big Creek	51 10	123 0						16·4			2 52·0		21	33·0		2 31·6																	0 10		0 05	2	25	0	0	0
Nickel Plate	49 30	120 0	5400																																				
Thetis Island								38·3			2 56·1		24	19·0		12 14·4																	4 14		1 01	10	18	0	0	0
Hedley								23·4			2 48·0		26	17·0		10 17·0																	0 41		0 08	8	20	0	0	0
Kitamaat																																							
Rossland	49 5	117 48	3100					23·4			2 49·0		25	10·5		11 14·3																	1 79		0 49	10	18	0	0	0
N. W. TERRITORIES																																							
Medicine Hat	50 1	110 37	2161	30·14	30·91	29·57	1·34	13·5	+ 2·5	21	61·0		28	14·0		2 22 7			1	1	3	0	0	1	12	9	1	3	21	56		16 0	13 W	0 15	0 53	0 10	2	25	0	0	0
Edmonton	53 33	113 30	2158	30·06	30·71	29·53	1·21	12·7	+ 4·3	22	54·0		27	35·0		11 23·1			5	3	2	2	1	9	13	2	6	6	12	56		13·8	15 8 W	0 05	0 72	0 20	3	22	8	0	0
Swift Current	50 29	107 45	2439	30·16	30·92	29·63	1·29	11·6	+ 4·1	19	58·0		27	31·0		11 18·9			4	3	3	0	0	5	7	9	13	1	15	56		30·0	6 S	0 48	0 25	0 14	4	21	1	0	0
Qu'Appelle	50 30	103 47	2115	30·15	30·91	29·72	1 19	6·4	+ 6·2	22	49·8		27	37·1		11 18·9			4	3	0	0	2	7	12	6	9	11	9	56		12·7	13 W	0 52	0 40	0 29	6	22	3	0	0
Calgary	51 2	114 2	3389	30·11	30·76	29·54	1·22	14·4	+ 1·4	21	57 0		28	10·0		2 25·4			3	1	0	2	2	4	2	3	19	15	9	56		24·0	13 N W	0 30	0 32	0 20	2	26	0	0	0
Prince Albert	53 10	106 0	1432	30·10	30·88	29·52	1·36	4·0	+ 6·3	20	46·0		26	39·3		12 23·3			4	5	3	0	0	3	5	4	3	9	27	56		14·0	8 N	0 32	0 41	0 20	3	24	4	0	0
Battleford	52 41	108 20	1620	30·18	30·96	29·64	1·32	5·3	+ 5·8	14	48·0		27	40·0		11 20·2			3	2	1	27	209	1	3	39	177	61	115	672	5·9	20·0	23 W	0 07	0 39	0 06	2	24	6	0	0
Banff	51 10	115 35	4512	30·16	30·67	29 62	1·05	15·8	0·1	10	45·8		28	37·7		11 23·7			3	0	0	2	0	0	1	26	10	0	17	56		21·5	14 W	0 30	0 52	0 15	5	22	2	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroræ.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																							
ONTARIO *Con.*																																								
Owen Sound	44 34	80 55	597	.....	.....	.....	.....	12·7	— 6·5	24	37·0	22	—21·0	4	19·2	.....	.....	.....	.....	19	4	2	4	11	30	2	12	0	84	.....	.....	.....	3·22	+0·43	0·85	13	14	0	0	0
Beatrice	45 8	79 20	806	.....	.....	.....	.....	9·9	— 4·1	29	33·0	9	—25·0	1	20·9	.....	.....	6	11	0	0	0	14	9	9	2	22	28	84	1	III	16 S	4·15	+1·26	0·90	10	18	0	0	0
Coldwater	44 38	79 40	600	.....	.....	.....	.....	9·7	— 4·7	18	37·0	24	—33·0	21	23·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·70	−2·14	0·18	7	21	0	0	0
Gravenhurst	44 51	79 20	770	.....	.....	.....	.....	10·2	— 5·1	34	35·0	9	—33·0	4	23·5	.....	.....	5	4	5	2	8	11	16	6	12	8	16	84	11	IV	17 S W	2·65	−0·81	0·60	12	16	2	0	0
Haliburton	45 1	78 28	.....	.....	.....	.....	.....	9·5	— 3·6	16	39·0	25	—32·0	19	25·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·28	+0·42	0·40	14	14	0	0	0
*Point Clark	44 5	81 44	595	.....	.....	.....	.....	15·7	— 5·4	32	40·0	22	—12·0	8	—	.....	.....	.....	.....	15	6	19	5	19	6	13	1	0	84	IV	X	10 W	1·60	−1·06	0·40	5	23	0	0	0
Birnam	43 2	81 55	600	.....	.....	.....	.....	11·4	— 5·5	19	33·8	21	—16·7	11	12·6	.....	.....	.....	.....	2	0	4	3	1	17	7	19	3	56	.....	.....	.....	3·15	−0·40	0·62	12	16	0	0	2
London	42 59	81 13	808	30·18	30·72	29·63	1·09	11·7	— 6·2	21	36·0	20	—17·0	8	17·6	.....	.....	.....	.....	4	0	7	5	0	25	8	35	0	84	1	III	S E	3·06	1·06	0·56	13	9	0	0	0
Port Stanley	42 40	81 13	592	30·2	30·71	29·63	1·11	16·2	— 6·2	31	35·2	20	—12·8	14	17·3	.....	.....	7	9	18	48	12	36	18	125	68	282	62	672	12·2	29·3	17 W	2·75	−0·40	0·74	16	10	0	0	3
Woodstock	43 8	80 47	980	30·18	30·70	29·61	1·09	15·1	— 5·4	31	35·0	20	—16·0	14	17·9	.....	82	1	6	18	25	29	117	14	151	107	200	8	672	12·2	25·0	17 W	2·00	−0·26	0·53	11	17	0	0	0
Port Dover	42 47	80 13	635	.....	.....	.....	.....	14·1	— 7·3	29	37·	20	13·1	14	15·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·24	−1·16	0·65	11	17	0	0	0
Pelee Island	41 50	82 38	585	.....	.....	.....	.....	24·4	— 1·0	26	45·0	21	1·0	3	8·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·50	−2·38	0·30	3	25	0	0	0
Paris	43 12	80 25	840	.....	.....	.....	.....	15·9	— 4·6	25	65·0	28	—20·0	19	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·20	−1·30	0·60	4	21	0	0	0
Calvin	46 15	78 48	.....	.....	.....	.....	.....	6·5	— 4·1	10	33·8	25	—27·2	5	19·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·75	−1·08	0·53	10	16	1	0	0
Agincourt	43 47	79 16	.....	.....	.....	.....	.....	10·4	— 5·7	10	35·0	21	—15·0	19	21·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·37	−1·01	0·40	9	19	0	0	1
Hamilton	43 16	79 51	303	.....	.....	.....	.....	13·6	—10·1	28	39·0	21	—12·0	8	18·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·70	1·03	0·70	5	23	0	0	2
Port Hope	43 56	78 20	.....	.....	.....	.....	.....	11·6	—	8	36·0	20	—21·0	18	20·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·25	—	0·85	16	12	0	0	0
Kinmount	44 45	78 38	.....	.....	.....	.....	.....	2·1	—	8	36·0	25	—32·0	19	28·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·30	—	0·50	9	19	0	0	0
Cockburn Island	45 47	83 18	610	.....	.....	.....	.....	8·8	—	8	38·0	26	—18·0	11	19·8	.....	.....	.....	.....	2	2	6	3	9	9	10	12	3	56	.....	.....	.....	1·60	—	0·30	9	19	0	0	0
Chatham	42 23	82 12	595	.....	.....	.....	.....	17 6	— 5·6	18	38·0	21	—15·0	14	13·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·80	−0·99	0·35	5	23	0	0	0
Meaford	44 37	80 37	.....	.....	.....	.....	.....	11·7	—	6	37·0	25	—19 0	4	19·0	.....	.....	.....	.....	9	1	5	3	0	22	10	6	0	56	.....	.....	.....	1·71	—	0·25	13	15	0	0	0
Listowel	43 44	80 58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bruce Mines	46 18	83 55	595	.....	.....	.....	.....	9·1	—	7	41·0	20	—20·0	11	20·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·30	—	0·40	7	21	1	0	0
Rat Portage	49 48	94 32	1102	.....	.....	.....	.....	3·9	—	6	44·0	27	—35·5	12	21·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	0	1
Dunnville	42 54	79 39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sturgeon Falls	46 16	79 54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Uplands	45 18	79 25	.....	.....	.....	.....	.....	8·4	— 1·1	18	34 1	21	—21·5	1	22·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Toronto	43 40	79 21	350	29 82	30·72	29·51	1·21	16·7	— 5·7	64	37·8	20	— 8·2	4	17·7	12·3	85	6	2	61	26	81	8	66	119	162	141	8	672	13·2	26 9	14 SW	1 40	1·20	0·48	13	12	0	1	1
Welland	42 59	79 17	425	.....	.....	.....	.....	16·2	— 3·6	17	40·0	22	—17·0	8	19·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	0
Peterborough	44 17	78 19	722	.....	.....	.....	.....	10·1	— 7·0	33	36·0	24	—22·6	16	23·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·85	+0·03	0·45	7	21	0	0	0
Lindsay	44 20	78 45	872	30·11	30·66	29·55	1·11	11·3	— 4·9	25	35·3	9	—18 1	8	20·5	.....	.....	6	6	12	1	9	8	3	13	11	15	12	84	11	IV	5 E	3·58	+0·62	0·59	11	12	0	0	3
Deseronto	44 11	77 4	264	.....	.....	.....	.....	12·4	— 5·4	20	43·0	24	—19·0	17	26·4	.....	.....	5	6	3	9	11	4	1	8	31	11	1	82	7·8	18·0	12 W	2 17	+0·35	0·60	10	15	0	0	1
Lakefield	44 25	78 15	.....	.....	.....	.....	.....	7·7	— 6·8	19	34·0	21	—18·5	8	19·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·05	+0 51	0·80	11	17	0	0	0
Ridgetown	42 30	81 55	657	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston	44 13	76 29	285	30·15	30·68	29 52	1·16	11·9	— 6·5	31	35·3	20	—17 6	16	20·5	.....	.....	7	7	9	11	1	3	4	7	16	5	0	56	.....	19·2	9 8	1·10	−1·35	0·25	11	15	0	0	0
Clontarf	45 23	77 9	.....	.....	.....	.....	.....	9·8	— 3·7	18	35·0	24	—19·8	8	22·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·50	−1·15	1·00	7	18	0	0	0
Ottawa	45 26	75 42	291	30·11	30·67	29·42	1·25	9·6	— 3·1	22	34·0	20	—13·0	3	17·4	.....	.....	7	7	2	7	8	0	3	11	17	7	1	56	.....	.....	.....	1·48	−1·21	0·45	11	14	0	0	0
Rockliffe	46 9	78 6	557	30·12	30·69	29·52	1·17	5·9	— 3·8	28	34·0	20	—35·0	14	25·3	.....	.....	6	8	3	3	7	0	2	6	1	1	33	56	.....	.....	.....	1·83	−0·11	0·60	12	15	0	0	0
*Sarnia	42 59	82 21	586	.....	.....	.....	.....	15·7	— 4·4	10	38·0	20	—10·0	11	—	.....	.....	.....	.....	4	0	8	1	7	18	9	13	24	84	.....	.....	.....	1·40	−0·69	0·40	5	23	0	0	0
Stratford	43 2	81 0	1191	.....	.....	.....	.....	11·6	— 7·5	38	34 0	23	—19·0	14	17·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4·14	1·28	1·05	9	19	0	0	0
Lucknow	43 56	81 30	.....	.....	.....	.....	.....	12 2	— 7·0	18	34·7	22	—17·0	8	17·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·23	−0·92	0·35	17	11	0	0	1
White River	48 35	85 16	1252	30·15	30·77	29·45	1·32	− 0·2	— 1·3	16	33·5	23	—44·0	11	30·4	.....	.....	5	6	37	51	17	78	76	37	161	54	162	672	5·2	9·0	21 SE	1·13	−0·24	0·40	18	9	0	0	0
Port Arthur	48 27	89 12	644	30·17	30·73	29·49	1·24	8·4	+ 1·8	25	41·0	24	—24·0	13	21·3	.....	.....	5	6	17	77	25	50	33	92	119	193	66	672	5·2	10·4	21 SE	0·29	−0·50	0·18	4	26	2	0	1
Stony Creek	43 13	79 15	292	.....	.....	.....	.....	17·3	— 6·0	20	40·0	20	—13·0	8	18·0	.....	.....	.....	.....	3	2	11	3	2	22	31	2	8	84	.....	.....	.....	2·48	−0·75	0·91	11	15	0	0	0
*Otonabee	44 29	78 18	674	.....	.....	.....	.....	12·7	—	9	35·0	20	—12·0	2	—	.....	.....	.....	.....	1	0	16	6	0	10	10	40	1	84	.....	.....	.....	1·65	—	0·50	7	21	0	0	0
Wiodsor	42 20	83 1	625	.....	.....	.....	.....	17·3	6·8	28	37·0	21	—12·0	14	16·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·65	0·85	0·30	8	19	0	0	0
Alton	43 51	80 5	1250	.....	.....	.....	.....	11·2	— 5·0	18	35·3	25	2·5	4	23·5	.....	.....	5	2	6	4	16	1	7	7	31	9	0	81	11	IV	14 W	1·70	−0·46	0·50	11	17	0	0	3
Guelph	43 33	80 16	.....	.....	.....	.....	.....	14·0	— 3·2	17	34·0	22	—15·0	14	15·0	.....	.....	7	17	1	2	6	3	6	10	20	5	3	56	.....	.....	.....	1·84	+0·08	0·40	11	13	0	0	1
*North Bruce	44 23	81 25	.....	.....	.....	.....	.....	14·3	— 3·8	17	34·0	22	15·0	8	.....	.....	.....	.....	.....	11	9	11	6	12	16	15	4	0	84	.....	.....	.....	1·99	−0·33	0·30	19	9	0	0	0
Collingwood	44 30	80 15	595	.....	.....	.....	.....	12·3	— 5·8	13	36·0	25	—14·0	8	17·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rocklyn	44 28	80 36	1339	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bala	45 0	79 30	740	.....	.....	.....	.....	10·1	1·0	21	33·5	9	—27·5	4	20·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·00	+0·22	0·60	12	16	0	0	0
Orillia	44 34	79 24	775	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saugeen	44 30	81 21	156	30·11	30·68	29·58	1·10	15·0	4·9	29	36·0	1	—18·1	4	17·0	.....	.....	8	14	4	1	20	6	2	1	8	6	8	56	.....	26·3	2 NW	2·34	−0·58	0·40	20	6	0	0	0
St. Catharines	43 10	79 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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OBSERVATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING FEBRUARY, 1905.

STATION	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Naas Harbour	2·98	7	17	0·73	27	19·0	4	10·0	7	
Port Essington	6·91	14	9	0·85	27	15·6	7	6·0	5	
Sooke Lake	5·91	8	19	1·89	24	1·0	1	1·0	10	
Albermi	9·80	10	18	2·66	19					
Goldstream Lake	5·89	12	16	2·01	24	3·0	1	3·0	9	
Royal Oak	3·20	11	17	0·85	23	0·3	1	0·3	9	
Nanaimo	5·40	6	21	2·25	19	3·0	1	3·0	9	
N. W. TERRITORIES—										
Stirling			27			1·0	1	1·0	12	
Innisfail	R		23			2·0	4	0·5	8	
Magrath			26			0·8	3	0·5	10	
Beaver Hills, W	0·01	1	25	0·01	25	0·7	2	0·7	9	
Regina			27			1·5	1	4·5	8	Fog on 21st.
Last Mountain			25			1·0	3	1·0	13	
Lacombe			26			1·5	2	1·5	9	
Beaver Hills, E										26. Snow all gone.
Victoria			26			0·8	2	0·5	7	
Dirt Hills	0·50	1	26	0·50	25	5·0	3	2·0	8	11th 60°.0 below zero.
MANITOBA—										
Norquay			23			3·0	5	1·3	17	—45° on 2nd.
Gretna			24			2·5	4	2·0	8	
Cartwright			26			1·3	2	0·8	13	—34° on 1th.
Moreton			28							
Rapid City			20			1·6	8	1·0	8	
ONTARIO—										
Dutton			23			12·5	5	5·0	18	
Princeton			15			24·0	13	6·0	12	Heavy fog for 4 days from 22nd.
Wyoming			21			11·0	7	3·0	6	
Croydon			24			9·0	4	4·0	17	
Emsdale			15			21·0	13	5·0	9	
Lansdowne			24			8·0	4	3·0	12	
Westminster			18			25·0	10	7·0	12	
Scarboro	0·40	1	21	0·40	22	13·9	7	5·0	12	
Jermyn			20			12·0	8	4·0	7	
Ennismore			22			17·0	6	5·0	10	
Ursa			18			33·0	10	6·0	12	
Westport			17			26·0	11	6·5	12	
Deer Park	0·11	1	22			18·8	5	7·3	12	
Montague			21			10·5	7	4·0	6	
Smiths Falls			21			24·5	7	8·0	14	
Midland			16			25·8	12	3·5	5	
Arden			19			23·0	9	6·0	13	
Uxbridge			15			28·0	15	6·0	6	
Parma			19			31·0	9	11·0	18	
Wooler			19			19·0	9	6·0	17	
Aurora			16			13·6	12	4·5	6	
Oliver's Ferry			21			14·0	7	4·0	6	
Orangeville			16			23·2	12	5·9	9	
Georgetown			11			21·0	17	8·5	6	
Goderich			20			25·5	8	5·0	6	
Sydenham			23			20·0	5	6·0	12	
Wiarton			18			37·5	10	8·0	12	
Lion's Head			19			10·5	11	2·5	9	
NEW BRUNSWICK—										
Point Escuminac			18			35·8	10	8·4	7	
NOVA SCOTIA—										
Port Morier	1·24	4	21	0·58	27	16·0	4	6·0	16	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF FEBRUARY, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria				0·20	0·50	0·56	0·60	0·63	0·62	0·59	0·58	0·48	0·09			
Nanaimo				0·19	0·36	0·44	0·60	0·58	0·55	0·61	0·57	0·50	0·10			
Agassiz				0·04	0·31	0·48	0·55	0·60	0·59	0·56	0·55	0·44	0·17			
Battleford				0·37	0·76	0·78	0·75	0·71	0·81	0·75	0·74	0·36	0·00			
Indian Head				0·06	0·33	0·56	0·68	0·71	0·74	0·76	0·65	0·37	0·10			
Brandon				0·04	0·40	0·64	0·70	0·75	0·78	0·76	0·81	0·76	0·27			
Winnipeg			0·02	0·17	0·46	0·58	0·64	0·65	0·69	0·71	0·76	0·64	0·21			
Woodstock				0·06	0·29	0·39	0·36	0·46	0·44	0·41	0·41	0·31	0·18			
Toronto				0·02	0·33	0·45	0·48	0·49	0·46	0·47	0·51	0·47	0·42	0·06		
Lindsay				0·04	0·26	0·36	0·47	0·47	0·46	0·51	0·48	0·41	0·34	0·06		
Gravenhurst				0·18	0·50	0·47	0·55	0·59	0·59	0·56	0·50	0·48	0·40	0·10		
Kingston			0·07	0·31	0·44	0·56	0·63	0·65	0·59	0·60	0·53	0·49	0·22			
Ottawa				0·05	0·27	0·44	0·58	0·64	0·63	0·54	0·50	0·50	0·17			
Montreal				0·01	0·31	0·50	0·53	0·60	0·53	0·51	0·19	0·12	0·01			
Quebec				0·10	0·33	0·38	0·46	0·54	0·53	0·54	0·45	0·44	0·21			
Fredericton				0·15	0·37	0·49	0·57	0·61	0·57	0·55	0·53	0·49	0·25	0·01		

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month... (*Constant sunshine being 1.*)	0·47	0·44	0·42	0·61	0·48	0·59	0·55	0·31	0·40	0·37	0·47	0·48	0·41	0·44	0·39	0·44
Difference from average	+0·23	—	+0·20	+0·13	+0·13	+0·16	+0·07	+0·01	+0·04	+0·02		+0·12	+0·07	+0·02		+0·07
Maximum daily amount	0·89	0·87	0·82	0·88	0·84	0·87	0·89	0·87	0·94	0·94	0·96	0·91	0·85	0·98	0·89	0·91
Date	16	25	18	11	27	27	28	4	18	4	15	18	18	11	19	19
No. of days completely clouded	5	6	10	1	2	2	3	7	4	8	5	6	7	6	5	8

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Beaver Hill, W., II ; Cartwright, II ; Rapid City, Georgetown, IV ; Threehills Creek, III ; Albion, St. Peters, I ; Hillsdown, III ; Foxleigh, Gray Hill, II ; Grenfell, Estevan, Moose Jaw, Hillview, III ; Morden, Aweme, I ; Berens River, Bowsman, IV ; Rat Portage, III ; Bruce Mines, Calvin, Savanne, Father Point, Minnedosa, Barkerville, IV ; Banff, III ; Battleford, III.

2. Beaver Hills, W., II ; Cartwright, III ; Rapid City, Cranbrook, I ; Quesnel, Threehills Creek, IV ; Albion, I ; St. Peter, IV ; Hillsdown, IV ; Foxleigh, Gray Hill, III ; Treherne, Aweme, I ; Powsman, IV ; Madoc, Rat Portage, I ; Savanne, Port Arthur, Qu'Appelle, III ; Swift Current, Edmonton, Minnedosa, I ; Banff, III ; Gravenhurst, III.

3. Rapid City, I ; Georgetown, IV ; Threehills Creek, II ; Albion, III ; St. Peters, I; Foxleigh, Treherne, Aweme, III ; Rat Portage, IV ; Port Arthur, I ; Qu'Appelle, I ; Swift Current, Edmonton, Minnedosa, I ; Battleford, I ; Gravenhurst, II.

4. Rapid City, Albion, IV ; Foxleigh, Gray Hill, III ; Hillview, IV ; Rat Portage, IV ; Swift Current, Edmonton, IV ; Minnedosa, IV ; Grand Manan, IV.

5. Cartwright, IV ; Albion, IV ; St. Peters, Gray Hill, IV ; Treherne, Aweme, III ; Bowsman, IV ; Swift Current, Prince Albert, III ; Minnedosa, IV.

6. Albion, IV ; St. Peters, IV ; Grenfell, Edmonton, IV ; Minnedosa, IV.

7. Hillsdown, IV ; Treherne, Aweme, IV ; Minnedosa, IV ; Renfrew, IV.

8. Albion, IV.

9. Albion, IV ; Hillsdown, IV ; Gray Hill, IV ; Grenfell, Savanne, Minnedosa, IV.

10. Edmonton, IV.

11. Rat Portage, IV.

12. Oakbank, Prince Albert, III ; Battleford, III.

13. Edmonton, IV ; Battleford, III.

14. Hillview, Rat Portage, II ; Savanne, Edmonton, III.

15. Regina, Morden, Chicoutimi, Battleford, III.

16. Albion, III ; Edmonton, IV ; Battleford, I.

17. Albion, IV.

22. Cartwright, IV ; Morden, Aweme, II ; Oakbank.

23. Albion, IV ; St. Peters, IV ; Gray Hill, IV ; Aweme, III ; Madoc, Qu'Appelle, IV ; Prince Albert, I ; Minnedosa, II.

24. Albion, IV ; Estevan, Prince Albert, I ; St. Agathe, IV.

25. St. Peters, IV ; Gray Hill, III ; Aweme, III ; Minnedosa, II.

26. Albion, IV.

27. Albion, IV ; St. Peters, IV ; Minnedosa, IV.

FORECASTS FOR FEBRUARY, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 984. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	71	66	2	3	94·4
Lake Superior	87	68	12	7	85·1
Lower Lake Region	104	86	9	9	87·0
Georgian Bay	104	77	19		83·2
Ottawa Valley	94	76	8	10	85·1
Upper St. Lawrence	94	76	9		85·6
Lower St. Lawrence	104	86	8	10	86·5
Gulf	104	86	9	9	87·0
Maritime Provinces, West	111	82	17	12	81·5
Maritime Provinces, East	111	81	17	13	80·6
Total	984	781	110	90	85·3

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
28th March, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

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Monthly Weather Review.

VOL. XXIX. MARCH, 1905. No. 3.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of March over the lower mainland and islands of British Columbia was exceedingly mild and somewhat wet in most localities. On Vancouver Island clouded skies were frequent, whilst over the mainland the mean proportion of bright shunshine was normal. Much fine weather prevailed during the first half of the month, but during the second half it was mostly dull and cold. Over the Upper Mainland the weather was unusually mild and at most places the precipitation was rather lighter than usual. As in districts further westward, there was much bright sunshine during the first half of the month and from the 16th to 31st it was also dull, cool and wet.

The weather in the North-West Territories was almost phenomenally mild, the precipitation was quite light and there was much bright sunshine. Although the day temperatures were usually between 40° and 50° in Alberta and 30° and 40° in other portions of the Territories during the first half of the month, hard frosts occurred at night; and from the 9th to 15th temperatures well below zero were recorded. On or about the 16th there was a marked rise and 50° was frequently exceeded up to the end of the month throughout the Territories. In many districts wild plants were in bloom on the 31st.

In Manitoba the weather was exceptionally mild but somewhat less so than in the Territories, and the precipitation was slightly excessive. From the 9th to 13th and 17th to 27th bright sunshine prevailed whilst during other dates there was much cloudiness. From the 9th to 15th temperatures well below zero were general, and up to the 20th the nights were comparatively cold. Several plants were in bloom on the 31st.

The weather in Ontario was exceedingly fine and dry and in most districts it was somewhat milder than usual. Although the temperature frequently rose above 32° in southern counties, comparatively cold weather continued throughout the province from the 1st to 18th. On the latter date it became much milder and continued so to the end of the month, 70° being exceeded at many stations on the 29th. The precipitation recorded occurred on or about the 4th, 17th, 18th, 19th and 25th to 29th, it being mostly snow during the first half of the month and rain during the second half, with local thunder storms on the 28th. Light or moderate winds were also a feature of the weather of the month. The spring-like conditions prevailing late in the month soon broke up the ice upon the rivers and quickened vegetation.

In the Province of Quebec the weather was finer, colder and drier than usual and there was a marked absence of high winds and heavy snowstorms. From the 1st to 15th temperatures below zero were frequently recorded at night, after which the weather became much milder and continued so to the end of the month, 60° being exceeded at some places on or about the 29th. In some portions of the province the ground was almost bare at the end of the month and the snow was melting rapidly.

The weather in New Brunswick was slightly colder, and much drier than usual and the proportion of bright sunshine exceeded the average. Up to the 17th the weather continued quite cold and although the temperature rose above 32° in southern districts it frequently dropped well below zero at night throughout the province. On the 18th there was a marked rise and mild conditions prevailed to the end of the month. Precipitation occurred at most places on or about the 8th, 20th, 26th and 28th. Light to moderate winds were general and storms were completely absent. On the 31st bare ground could be seen in many places, but in the woods the snow was comparatively deep.

The weather conditions in Nova Scotia were similar to conditions in New Brunswick, both the temperature and the rainfall being below the average ; much bright sunshine and an absence of high winds were also features of the weather of March. Snow occurred in most districts on or about the 1st, 6th and 9th and rain on the 9th, 11th and 28th. In northern localities the depth of the snow on the ground on the 31st exceeded 12 inches, whilst in the southern portion of the Province the ground was bare in many places.

In Prince Edward Island the weather was exceedingly fine, cold and dry and the winds were generally light or moderate. Comparatively cold weather was almost continuous to the 16th, after which it turned much milder and remained so to the end of the month. Although the snow was melting fastthe ground was still covered on the 31st.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure reached the normal value over the Rainy River District of Ontario. Eastward from that district departures from average were positive increasing to 0·17 of an inch at Yarmouth, N.S. Westward the pressure was subnormal, except locally in Central British Columbia where the average was attained. Negative departures amounted to 0·13 of an inch at Prince Albert, and 0·11 of an inch at New Westminster, B.C.

HIGH AREAS.

Fourteen areas of high pressure passed across the Continent during March. Many were quite pronounced, more especially during the first half of the month when barmometer readings of 30·60 and 30·70 inches were recorded.

The mean track of the centres of these anti-cyclonic systems appears to have been from the far Northwest, southeastward and out to sea over the Middle Atlantic States.

Some severe cold waves spread over the country in conjunction with pronounced high areas during the early part of March, but for the last decade of the month more moderate conditions attended the systems.

LOW AREAS.

Sixteen areas of low pressure traversed the Continent during March. The paths pursued were well distributed, though the course from the far North-West across the Lakes to the Gulf of St. Lawrence, was apparently most favoured.

The features of these cyclonic systems were their general feebleness together with the meagreness of the accompanying precipitation, and the remarkable absence of high winds and severe storms. Local gales were experienced on a few occasions in parts of Canada, but these were neither heavy nor prolonged.

The precipitation accompanying the depressions during the first eighteen days was mostly as snow, while that which fell during the remaining portion of the month was as rain.

WINDS.

In British Columbia in Vancouver Island and over the mainland the south and east directions predominated with ten days of strong and nine of fresh breezes and one gale.

In the North-West Territories the westerly direction was most in evidence with five days of strong and eighteen of fresh breezes and two gales.

In Manitoba the direction was variable. There were twelve days with strong and ten with fresh breezes and one gale.

In the Lake Region the direction was variable with six days of strongand fourteen of fresh breezes and no gales.

In the Ottawa and Upper St. Lawrence Valleys the direction was variable with six days of strong and fifteen of fresh breezes and no gales.

In the Lower St. Lawrence Valley and the Gulf the direction was chiefly westerly with ten days of strong and thirteen of fresh breezes and one gale.

In the Maritime Provinces the direction was mainly westerly with seven days of strong and thirteen of fresh breezes and no gales.

No storm warnings were issued and no gales occurred.

TEMPERATURE.

The temperature was above the average from Vancouver Island and the Coasts of British Columbia eastward as far as and including the Peninsula of Ontario, and average or below in Eastern Ontario, Quebec and the Maritime Provinces, the chief deficiency being experienced in Prince Edward Island and Cape Breton, and varying from 3 to 4 degrees. The positive departures in Manitoba and the North-West were phenomenal, ranging from 11 degrees at Winnipeg and Calgary to 16 degrees at Swift Current and Qu'Appelle and 20 degrees at Battleford. In British Columbia the positive departure was from 5 to 14 degrees.

The highest and Lowest temperatures in each Province during March, 1905, were :

British Columbia,	77° ·1 on 9th at Alberni,	0° ·5 on 12th at Stuart's Lake.
N. W. Territories,	74° ·0 on 24th at Onion Lake,	—22° ·0 on 11th at Melfort.
Manitoba,	61° ·5 on 25th at Aweme,	—35° ·0 on 10th at Channel Island.
Ontario,	80° ·0 on 29th at Cottam,	—40° ·0 on 11th at White River.
Quebec,	66° ·0 on 30th at Brome,	—32° ·2 on 13th at Shawinigan Falls.
New Brunswick,	61° ·5 on 30th at Chatham,	—25° ·0 on 15th at Sussex.
Nova Scotia,	55° ·2 on 30th at Yarmouth,	—10° ·6 on 15th at Sydney.
Prince Edward Island,	49° ·0 on 26th at Charlottetown,	—16° ·0 on 15th at Summerside.

PRECIPITATION.

The precipitation was above the average amount in many parts of Manitoba, and more locally over the Lower Mainland of British Columbia and in the Island of Vancouver where some heavy rains were recorded, at Winter Harbour 15 in. or 7 in. above the average, at Alberni 12 in. or 6 in. above, at Somas River 12 in., at Bamfield 10 in., at Clayoquot 23 in. and at Cape Scott 13 in., elsewhere it was below the average. The positive departures, only in a few places, appear to have exceeded 1 inch, whereas the negative departures were very marked in all districts. In Ontario, Toronto was 2 inches below the average amount ; Kingston and Ottawa an inch and a half. In Quebec the deficiency was very generally an inch and three quarters, in the Maritime Provinces from two to nearly four inches, in many portions of the North-West Territories three quarters of an inch, and in the interior of British Columbia about half an inch. The absence of snow was remarkable ; no heavy snowstorms occurred anywhere, the most pronounced being the storm in Manitoba on the 28th, when the fall was from 4 to 5 inches, and the storm in Alberta on the 30th, when 4 inches were recorded locally.

SNOW AND ICE.

At the close of the month over the whole of the Dominion the ground was nearly bare of snow, except in isolated localities, these being more especially in a few parts of Quebec and the Maritime Provinces. There was also snow still in the woods in parts of Ontario. In British Columbia little or no snow was reported on the Mountains.

Ice was everywhere becoming rotten and honeycombed, and in many localities, rivers, streams, and harbours, were already open.

BRIGHT SUNSHINE.

The Bright Sunshine recorded during March was below the average amount in British Columbia, Manitoba and locally in South Eastern Ontario ; elsewhere the average was exceeded.

The extremes of departure were + 15% at Battleford, N.W.T. and — 11% at Winnipeg, Man.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder-storms.	No. of fogs.
				in.	in.	in.	in.																																	
BRITISH COLUMBIA—																																								
Victoria	48 24	123 19	85	29·89	30·06	29·53	0·92	47·9	+ 5·2	11	68·0	9	31·3	29	10·5			7	7	93	85	31	92	33	90	91	15	211	744	6·2	12·5	27 W	1·39	1·52	0·41	18	9	0	0	2
Barkerville	53 2	121 35	4180	29·81	30·50	29·33	1·17	32·9	+ 7·7	17	50·0	15	2·0	12	17·0			6	10	1	0	0	0	14	0	0	0	47	62		16·0	1 8	1·60	- 0·32	0·48	8	20	0	0	0
Agassiz	49 14	121 31	52					50·4	+ 9·4	15	76·0	6	30·0	6	27·9			4	0	30	0	0	0	27	0	36	0	0	93				5·69	+ 0·27	0·90	19	12	0	0	0
Port Simpson	54 34	130 26	26	29·71	30·37	29·11	1·23	43·0	+ 5·2	18	57·5	9	25·3	29	10·9			7	11	8	5	15	4	0	3	7	11	9	62		18 3	11 NW	5·30	- 0·16	0·89	21	10	0	0	0
Revelstoke	51 0	118 6	1476					37·5		5	55·0	9	22·0	13	11·0																		2·37		0·37	15	16	0	0	0
Kamloops	50 41	120 29	1193	29·83	30·16	29·11	1·02	45·4	+ 9·0	12	66·7	3	27·2	12	20·6			6	9	0	0	8	7	6	1	3	2	35	62		20·0	24 W	0·10	0·51	0·60	0	31	0	0	0
Princeton	49 29	120 29	1650					39·1	+ 7·3	10	62·0	9	20·0	29	23·1																		1·00	+ 0·12	0·41	10	21	0	0	0
Pilot Bay	49 39	116 55	2000																																					
Rivers Inlet	51 39	127 19	20	29·82	30·50	29·32	1·18	44·1	+ 6·1	11	66·5	10	27·9	30	12·3	40·0	88	7	8	0	2	18	30	0	7	0	0	36	93	11	VI	12 SE	9·96	+ 1·84	1·41	20	11	0	0	0
Stuart's Lake	54 28	124 12	1800					31·8	+ 12·1	10	60·0	21	0·5	12	27·2																		1·20	- 0·28	0·35	9	22	0	1	0
Coldstream	50 14	119 15	1246					43·2		9	61·0	9	24·0	29	19·3																		0·59		0·18	5	26	0	0	0
a Nanaimo	49 10	123 57		29·75	30·33	29·10	0·93	45·6		5	63·4	9	28·0	29	11·3			6	5	0	3	8	31	2	0	8	8	30	93	6·9	20·0	20 S E	6·60		0·75	21	10	0	0	0
Chilliwack	49 10	121 57	21	29·93	30·41	29·55	0·89	48·9		8	74·1	9	31·0	11	11·0			7	9	4	15	7	6	11	13	5	2	0	93				5·09		0·96	19	12	0	0	4
Port Bobs	50 32	128 3						43·5	+ 4·7	10	57·0	8	29·0	30	10·9					1	0	3	13	3	2	4	5	0	31				15·11	+ 6·86	1·97	20	11	0	0	0
Midway	49 0	118 46	1800																																					
Enderby	50 32	119 7	1180																																					
Nicola Lake	50 9	120 39	2120					40·6	+ 9·9	10	60·0	3	21·5	12	22·5																		0·35	0·28	0·35	1	30	0	0	0
West Kootenay	49 20	117 50																																						
Garry Point	49 21	123 17						45·2	+ 1·5	10	56·5	2	30·0	30	11·5					3	5	24	3	17	2	16	12	11	93	10·0	26·7	10 S	3·97	- 1·02	0·73	19	12	0	0	0
Tobacco Plains	49 1	115 5	2370					40·9	+ 7·9	10	66·1	3	17·0	12	21·0																		0·48	- 0·84	0·28	5	26	0	0	0
Vancouver	49 17	123 5	195																																					
New Westminster	49 13	122 54	330	29·89	30·45	29·52	0·93	47·4	+ 5·5	12	71·4	9	28·4	30	13·8			8	17	0	5	18	8	3	9	0	3	16	62		10·0	24 SW	7·08	- 0·86	1·27	22	8	0	0	0
a Ladner	49 5	123 1						45·9		6	62·0	5	29·6	30	14·4																		4·10		0·75	13	18	0	0	0
North Nicomen	49 12	122 2	59					48·5	+ 6·7	13	72·0	9	32·0	30	14·6																		6·41	0·20	1·27	21	11	0	0	0
Quesnelle	52 59	122 30	1700					41·0	+ 13·9	10	61·0	8	14·0	12	27·0																		1·8	0·54	1·8	1	27	0	0	2
Clayoquot	49 11	125 47	40					45·8	—	6	64·0	10	28·0	30	12·6																		23·27		1·19	19	12	0	0	1
Cranbrook	49 30	115 50	2900																																					
Massett	53 58	132 9	30																																					
Bullion	52 45	121 55	2775					37·6		8	59·0	3	8·0	12	19·7																		0·52		0·20	6	25	0	0	0
Bella Coola	52 10	126 54	150					41·9		7	63·0	8	27·0	30	17·8																									
Cowichan	48 25	123 42	170					45·8		2	69·0	9	25·2	30	18·4																		5·88		1·03	19	10	0	0	0
Nelson	49 29	117 21	1760					40·2		5	60·0	16	25·0	11	15·4																		1·88		0·35	11	17	0	0	0
Matsqui	49 7	122 16																															3·57		1·10	8	13	0	0	0
Okanagan Mission	49 52	119 29	1200					42·4		6	58·4	16	26·0	29	21·0																		0·81		0·32	6	24	0	0	0
Alberni	49 15	121 49						47·0	+ 5·8	10	77·1	9	25·9	30	19·0																		12·11	+ 6·19	2·13	15	17	0	0	0
Kuper Island	48 54	123 38	10																																					
Cape Scott	50 48	128 27						43·5	—	7	55·0	13	30·1	29	9·2																									
Glacier	51 14	117 29	4072					30·9		9	51·0	10	9·0	13	12·4																		2·23		0·70	11	20	0	0	0
Golden	51 16	116 55	2550					39·0		4	58·0	10	15·0	12	20·8																		12·95		2·11	22	9	0	0	0
Spence's Bridge	50 25	121 30	760					46·7	+ 7·5	11	68·5	3	28·5	12	22·5																		0·01	0·65	0·01	1	27	0	0	0
Bamfield	48 50	125 9		29·85	30·40	29·47	0·93	44·5		3	67·1	9	28·9	30	12·6	40·7	87	6	6	9	5	11	16	11	6	3	3	26	93				10·55		2·00	20	11	0	0	2
Big Creek	51 10	123 0						31·6		1	62·0	8	5·0	11	25·4																		0·15		0·10	2	27	0	0	0
Nickel Plate	49 30	120 0	5400					32·5		1	52·0	8	10·0	29	15·1																		2·01		2·01	13	18	0	0	0
Thetis Island	49 0	123 40						46·0		2	68·2	9	27·1	30	14·7																		3·92		0·61	19	22	0	0	0
Hedley																																								
Kitamaat	53 59	128 42																																						
Rossland	49 5	117 48	3400					38·7	—	2	64·0	16	20·0	12	14·4																		3·81		0·64	15	16	0	0	1
N. W. TERRITORIES																																								
Medicine Hat	50 1	110 37	2161	29·89	30·53	29·39	1·14	40·6	+15·7	21	68·0	2	6·5	11	21·7			6	2	1	1	11	2	7	8	8	9	15	62		30·0	32 W	0·55	0·17	0·50	2	26	0	1	0
Edmonton	53 33	113 30	2158	29·87	30·62	29·31	1·31	35·4	+13·4	22	61·0	20	— 8·0	12	22·0			6	5	4	10	5	11	4	5	6	7	13	62		15·4	30 E	0·48	0·26	0·25	4	26	3	0	0
Swift Current	50 20	107 45	2439	29·97	30·63	29·26	1·37	35·4	+15·8	19	66·0	2	— 2·0	11	21·7			5	0	9	1	7	2	8	6	8	8	8	62		21·3	25 SW	0·20	—0·70	0·10	5	22	3	0	1
Qu'Appelle	50 30	103 47	2115	29·96	30·61	29·16	1·45	30·9	+17·2	22	61·6	21	—10·0	12	22·7			6	8	2	7	3	6	9	11	2	12	10	62		11·3	31 S E	0·26	0·79	0·08	8	22	1	0	0
Calgary	51 2	114 2	3389	29·90	30·54	29·40	1·14	36·0	+12·7	21	66·0	2	1·0	11	22·3			7	7	1	8	7	9	0	6	13	12	6	62		20·0	25 W	0·65	0·11	0·24	7	23	0	0	0
Prince Albert	53 10	106 0	1432	29·93	30·58	29·33	1·25	26·3	+15·0	20	54·0	26	18·0	13	21·9			6	9	7	3	12	7	5	1	0	4	23	62		10·0	S N E	0·40	- 0·60	0·20	2	26	1	0	0
Battleford	52 41	108 20	1620	29·97	30·68	29·34	1·34	32·0	+20·5	11	60·0	21	— 9·0	12	23·3			4	1	70	1	31	26	11	1	84	112	129	744	6·4	25·7	8 N	0·07	- 0·61	0·03	4	20	1	0	0
Banff	51 10	115 35	4542	29·92	30·47	29·39	1·08	33·8	+ 13 3	10	57·1	8	— 3·5	12	18·6			6	4	5	6	1	0	1	20	12	1	16	62		10·5	1 8 W	0·93	0·77	0·39	10	19	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. MARCH, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observ'n	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Velocity of wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
				in.	in.	in.	in.	°	°		°		°		°	°	%																						
ONTARIO *Con.*																																							
Owen Sound	44 34	80 55	597					26·7	+ 0·6	26	78·5	29	− 8·5	1	12·4					11	11	0	2	27	21	3	17	1	93				1·63	0·93	1·21	6	25	0	0	3
Beatrice	45 8	79 20	806					23·3	+ 0·8	30	65·0	29	13·0	14	22·6					3	2	0	10	10	1	3	18	13	93	1	III	30 NW	2·27	0·69	0·80	8	23	1	0	2
Coldwater	44 38	79 40	600					24·0	+ 1·2	18	73·0	29	20·0	15	27·8																		0·85	1·90	0·48	3	28	0	0	0
Gravenhurst	44 54	79 20	770					23·4	0·4	31	67·0	29	19·0	1	24·8					3	2	6	16	13	2	14	6	31	93	11	IV	19 NE	1·54	0·97	0·85	7	21	3	0	1
Haliburton	45 1	78 28						24·0	− 0·5	16	71·0	29	20·0	14	29·5																		2·03	0·21	0·99	13	18	0	0	0
*Point Clark	44 5	81 44	595					27·3	+ 0·5	32	60·0	26	5·0	15	—																		1·17	0·93	0·87	2	29	0	0	0
Birnam	43 2	81 55	600					30·9	+ 3·0	22	76·5	29	7·2	2	17·3					30	6	11	8	38	0	0	0	0	93	III	VIII	19 NE	1·17	0·93	0·87	2	29	0	0	0
London	42 59	81 13	808	30·11	30·65	29·59	0·06	31·0	+ 1·6	22	75·0	29	6·5	2	20·7	27·3	83			17	8	2	10	12	7	2	2	2	62				1·78	0·69	0·55	7	17	0	1	2
Port Stanley	42 40	81 13	592	30·13	30·62	29·61	0·08	29·5	− 0·2	31	66·1	29	− 2·8	2	17·3			5	11	7	7	15	5	3	5	11	9	0	62				1·61	1·21	0·38	12	11	0	0	2
Woodstock	43 8	80 47	980	30·12	30·61	29·52	1·12	29·8	+ 1·7	30	74·0	29	1·0	5	20·1	26·2	86			42	67	82	131	29	127	114	76	76	744	8·6	21·5	18 SW	1·11	1·20	0·38	13	17	1	0	9
Port Dover	42 47	80 13	635					28·6	− 0·9	30	66·0	29	3·5	5	16·1																		1·30	1·51	0·37	10	21	0	0	0
Pelee Island	41 50	82 38	585					27·6	− 1·5	21	67·0	31	7·0	15	7·5																		0·48	1·93	0·31	2	26	0	0	0
Paris	43 12	80 25	840					29·7	0·4	15	77·0	29	12·0	5	32·4																		1·06	1·01	0·5	5	26	0	1	0
Bancroft	45 1	77 51						29·7	0·3	15	68·0	29	23·0	1	26·0																		0·95	1·52	0·55	3	27	0	0	0
Calvin	46 15	78 48						22·1	0·0	10	73·0	29	26·8	13	25·4																		0·70	1·87	0·12	8	21	1	0	1
Agincourt	43 47	79 16						26·3	1·2	10	60·5	30	0·0	5	16·6																		0·49	2·16	0·15	5	26	0	0	1
Hamilton	43 16	79 54	303					30·6	+ 0·3	29	63·5	31	1·0	5	16·3																		0·57	2·60	0·11	2	29	0	0	1
Port Hope	43 56	78 20						26·1		8	66·0	29	1·0	12	18·8																		1·13		0·65	6	25	0	0	0
Kinmount	44 45	78 38						21·7		8	67·0	29	21·5	1	25·6																		1·72		0·79	9	22	0	0	0
Cockburn Island	45 57	83 18	610					19·6		8	61·0	30	15·0	15	26·1					1	1	7	5	9	15	6	9	6	62				3·14		0·76	12	19	2	2	4
Chatham	42 23	82 12	595					35·5	+ 3·0	16	75·0	29	1·0	2	16·2																		1·29	1·21	0·40	4	27	0	0	0
Meaford	44 37	80 37						21·6	− 7·7	2	72·0	30	− 5·0	2	19·1					9	6	8	3	3	18	9	6	0	62				1·50		0·96	5	26	0	0	0
Listowel	43 44	80 58																																					
Bruce Mines	46 18	83 55	595					12·9	− 7·6	0	60·0	29	− 21·0	11	25·9																		1·61		0·76	6	25	4	1	0
Rat Portage	49 18	94 32	1102					22·8	− 6·6	1	61·0	27	22·4	11	20·0																		1·25		0·50	5	20	1	0	1
Dunnville	42 54	79 39																																					
Sturgeon Falls	46 16	79 54																																					
Uplands	45 18	79 25						22·3	0·3	18	70·0	29	17·0	1	28·8					1	1	0	2	2	16	6	3	0	31											
Toronto	43 40	79 24	350	30·11	30·65	29·59	1·06	30·3	+ 1·3	61	61·0	29	5·7	5	18·2	26·3	79	5	1	83	105	112	23	93	96	77	111	11	744	8·7	14·6	10 NW	1·66	1·21	0·38	12	18	1	1	0
Welland	42 59	79 17	425					30·1	+ 0·3	10	72·0	29	7·0	5	22·1																		0·50	2·16	0·20	7	18	1	0	0
Peterborough	44 17	78 19	722					25·2	− 1·1	33	70·0	29	12·0	7	23·8																		1·60	0·96	0·41	11	20	1	0	2
Lindsay	44 20	78 45	872	30·10	30·62	29·60	1·02	24·5	0·2	23	68·1	29	10·6	1	21·9			6	11	1	6	1	8	10	7	11	13	30	93	1	II	31 NW	2·29	0·25	1·11	13	17	0	0	2
Deseronto	44 11	77 1	261					29·6	+ 2·5	22	67·0	29	2·0	2	26·8			5	3	7	12	10	6	1	11	32	11	0	93	1	IV	19 NE					22	0	0	1
Lakefield	44 25	78 15						23·9	+ 0·1	19	62·0	30	8·0	13	21·1																		1·61	0·13	0·90	7	24	0	0	0
Ridgetown	42 30	81 55	657																																				
Kingston	44 13	76 29	285	30·11	30·64	29·64	1·00	25·1	− 2·2	31	62·0	29	− 3·1	11	19·3			6	5	5	11	2	10	5	15	12	1	1	62		18·7	20 NE	1·18	1·50	0·62	11	17	0	0	1
Clontarf	45 23	77 9						24·4	+ 0·2	17	68·5	29	− 16·0	13	25·6																		1·85	0·99	1·05	6	22	1	0	0
Ottawa	45 26	75 42	291	30·12	30·58	29·64	0·91	24·0	+ 0·4	22	54·0	30	− 12·0	11	18·1			5	3	1	13	6	3	3	4	12	5	2	62		III	3 SW	1·20	1·48	0·52	7	11	1	0	2
Rockliffe	46 9	78 6	557	30·10	30·59	29·56	1·03	23·6	+ 0·1	28	55·0	29	25·0	14	29·6			5	7	0	2	5	1	1	6	2	3	13	62		III	31 W	1·38	1·69	0·42	8	22	2	0	0
*Sarnia	42 59	82 24	586					32·0	+ 0·9	10	77·0	29	6·0	2	—					12	4	2	5	12	9	4	5	13	93				1·55	0·21	1·05	4	27	0	0	0
Stratford	43 23	81 0	1191					27·7	+ 1·1	37	68·0	29	1·0	14	15·2																		2·16	0·67	1·80	5	26	0	0	0
Lucknow	43 56	81 30						26·9	− 0·9	19	75·1	29	11·2	2	21·5																		2·12	0·13	0·87	11	15	2	0	2
White River	48 35	85 16	1252	30·10	30·59	29·57	1·02	11·0	+ 0·7	16	50·0	29	30·0	11	31·0			6	9	63	27	19	80	99	114	70	60	212	744	1·5	13·0	23 SE	2·31	+ 0·81	0·73	11	9	0	0	0
Port Arthur	48 27	89 12	644	30·06	30·62	29·52	1·10	21·6	+ 3·9	25	51·0	26	16·0	11	19·6			6	7	68	190	61	55	24	82	78	108	78	741	1·8	14·6	28 NE	1·13	+ 0·48	0·37	11	13	0	0	1
Stony Creek	43 13	79 45	292					30·7	0·6	21	70·0	31	0·0	15	19·4			5	1	6	6	22	0	1	30	9	3	13	93	III	VII	19 NW	2·03	0·91	0·95	5	26	0	0	0
*Otonabee	44 20	78 18	674					26·2	− 9·6	5	63·0	29	0·0	13	—					7	3	12	13	0	11	21	23	1	93				1·23		0·80	6	25	1	0	0
Windsor	42 20	83 1	625					35·5	+ 3·3	39	75·5	29	11·0	2	15·5																		1·05	1·73	0·47	3	21	0	0	0
Alton	43 51	80 5	1250																																				
Guelph	43 33	80 16						29·1	+ 1·1	16	73·5	29	0·3	15	18·6					7	2	18	3	3	5	16	6	2	62				0·61	0·97	0·20	5	19	1	0	1
*North Bruce	44 23	81 25						27·1	− 0·4	17	76·0	29	13·0	15	—					12	6	7	18	8	21	8	10	0	93				1·97	0·21	0·92	15	16	4	2	1
Collingwood	44 30	80 15	595					26·8	− 0·3	13	76·0	30	1·0	15	18·4																										
Rockly n	44 28	80 36	1339																																				
Bala	45 0	79 30	740					24·2	+ 0·9	21	54·5	29	13·0	14	22·5																		2·19	0·28	0·50	8	22	1	0	0
Orillia	44 36	79 24	775					24·6	− 0·6	12	66·0	30	− 12·0	1	19·5																		0·60	1·39	0·30	2	28	0	0	0
Saugeen	44 30	81 21	656	30·11	30·59	29·53	1·06	27·1	+ 1·0	29	78·0	21	7·5	2	22·2			5	7	7	1	19	9	2	3	4	1	16	62		16·3	26 E	2·33	0·39	1·52	13	16	1	0	1
St. Catharines	43 10	79 17																																					

| | | |

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING MARCH, 1905.

STATION	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01. or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date	
	in.			in.		in.		in.		
BRITISH COLUMBIA										
Port Essington..	8·32	21	10	0·97	23	*	1	*	29	
Naas Harbour	3·49	8	22	1·02	25	*	1		11	
Nanaimo City	5·06	14	17	1·41	24					
Somas River	12·30	18	13	1·61	23					
Goldstream Lake	7·16	23	8	1·21	1					
Royal Oak	2·34	10	21	0·49	23					
Sooke Lake	9·84	17	11	1·19	25					
Coquitlam	8·90	11	20	2·18	2	0·3	1	0·3	28	
N. W. TERRITORIES—										
Dirt Hills	0·50	1	27	0·50	25	5·0	3	2·0	8	13th, Blizzard.
Stirling	0·06	1	28	0·06	8	7·0	2	4·0	30	
Innisfail	R	0	27	R	21	1·2	1	1·0	3	
Regina	0·10	1	25	0·10	22	1·3	1	3·5	6	
Magrath	0·07	1	28	0·07	25	2·4	2	2·4	7·8	
Beaver Hills, W	0·40	3	23	0·21	16	1·9	1	1·5	21	Thunder' 26th.
Last Mountain			29			*	2			
Lacombe			30			0·5	1	0·5	20	
MANITOBA										
Rapid City	0·51	2	15	0·50	22	7·6	11	1·0	8	
Gretna	0·70	1	22	0·70	28	11·0	8	1·6	8	
Belmont	0·22	3	25	0·14	23		5			
Deloraine	1·02	3	24	0·75	23	2·4	4	1·0	7	
Norquay	0·15	1	23	0·15	22	14·0	8	8·0	29	
Cartwright..	0·67	3	25	0·40	28	7·8	5	5·0	28	
ONTARIO										
Sydenham	1·20	1	28	1·20	18	4·0	2	3·0	3	
Princeton.	1·25	1	29	1·25	20	4·0	1	4·0	3	
Watford	1·02	2		0·75	19					
Lansdowne	0·21	2	28	0·11	31	2·0	1	2·0	8	
Dutton	0·14	2	27	0·10	19	*	2	*	1	
Georgetown	0·49	4	19	0·33	18	3·1	7	1·8	4	Aurora, 1, 2, 4, 5, 8, 31.
Westminster.	2·02	5	25	1·82	19					
Lion's Head.	1·19	7	22	0·75	19	6·0	2	4·0	16	
Ennismore	0·70	2	29	0·50	18					
Goderich	0·64	3	26	0·40	17	2·0	2	1·0	7	
Scarboro	0·42	3	21	0·26	18	0·5	5	0·5	8	Thunder, 18, 26.
Emsdale	1·21	7	19	0·33	18	8·5	6	3·8	6	Aurora, 1, 31. Thunder, 28.
Midland	0·04	1	27	0·04	30	3·5	3	1·5	5	Aurora, 1, 31.
Croydon	0·95	2	29	0·80	18					
Arden	1·41	7	21	0·84	19	6·0	3	2·0	6	
Aurora	0·65	2	26	0·57	18	2·8	3	1·8	16	
Oliver's Ferry	0·60	2	27	0·50	18	2·0	2	1·0	8	
Montague	0·90	3	26	0·76	18	2·5	2	2·0	5	
Wiarton	1·99	7	21	1·08	18	5·5	3	2·5	7	
Wyoming	0·50	2	27	0·30	18	2·0	3	1·0	4	
Ursa	1·14	4	23	0·70	18	11·0	4	3·0	3	
Parma	1·03	2	29	0·56	19					
Smiths Falls	1·63	2	24	1·50	19	4·5	3	2·0	9	
Wooler	0·98	3	25	0·65	18	1·5	3	1·0	4	
Westport	0·25	1	28	0·25	18	1·0	2	0·5	8	
Jermyn	0·85	2	25	0·45	19	*	2	*		
Orangeville.	1·34	2	26	1·23	19	2·6	3	1·1	17	
Deer Park	0·48	5	24	0·19	18	1·3	1	1·3	1	
NEW BRUNSWICK										
Point Escuminac	0·11	3	27	0·05	28	1·1	1	1·1	6	Aurora, 3, 11.

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF MARCH, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria			0·12	0·33	0·39	0·35	0·34	0·44	0·40	0·39	0·39	0·41	0·28	0·03		
Nanaimo			0·00	0·17	0·33	0·40	0·54	0·53	0·51	0·55	0·52	0·45	0·10	0·00		
Agassiz			0·00	0·07	0·28	0·42	0·43	0·49	0·42	0·34	0·32	0·20	0·00	0·00		
Battleford			0·23	0·49	0·57	0·56	0·65	0·65	0·63	0·72	0·67	0·64	0·24	0·01		
Indian Head			0·00	0·12	0·38	0·51	0·59	0·57	0·65	0·61	0·63	0·61	0·29	0·01		
Brandon			0·00	0·11	0·49	0·53	0·57	0·60	0·56	0·59	0·53	0·47	0·35	0·13	0·02	
Winnipeg			0·09	0·32	0·45	0·47	0·48	0·48	0·44	0·44	0·42	0·43	0·33	0·10		
Woodstock			0·01	0·15	0·35	0·48	0·51	0·58	0·65	0·64	0·64	0·56	0·40	0·06		
Toronto			0·00	0·21	0·47	0·48	0·51	0·56	0·59	0·64	0·63	0·56	0·51	0·23		
Lindsay			0·01	0·24	0·42	0·47	0·50	0·54	0·55	0·59	0·58	0·48	0·40	0·25	0·02	
Gravenhurst			0·09	0·51	0·59	0·59	0·63	0·63	0·63	0·65	0·71	0·70	0·67	0·41	0·05	
Kingston			0·04	0·21	0·37	0·41	0·43	0·43	0·47	0·53	0·53	0·49	0·46	0·13		
Ottawa			0·02	0·21	0·44	0·64	0·67	0·60	0·59	0·60	0·54	0·58	0·51	0·07		
Montreal			0·04	0·39	0·60	0·60	0·52	0·53	0·57	0·59	0·61	0·50	0·23	0·00		
Quebec			0·05	0·35	0·53	0·63	0·62	0·65	0·67	0·63	0·67	0·58	0·51	0·06		
Fredericton			0·06	0·49	0·53	0·61	0·68	0·74	0·72	0·72	0·67	0·66	0·58	0·23		

	Victoria.	Nanaimo.	Agassiz	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·32	0·34	0·25	0·51	0·41	0·41	0·38	0·42	0·45	0·42	0·58	0·38	0·46	0·50	0·50	0·56
Difference from average	−0·09	—	0·00	+0·15	+0·07	−0·01	−0·11	+0·08	+0·03	0·00	—	−0·04	+0·10	+0·05	—	+0·09
Maximum daily amount	0·88	0·76	0·74	0·90	0·80	0·90	0·93	0·91	0·90	0·94	0·96	0·93	0·86	0·97	0·86	0·90
Date	8	25	9	30	26	26	10	1	1	15	20	2	22	2	6	17
No. of days completely clouded	7	9	11	0	5	5	10	8	7	5	4	8	3	3	4	5

Thunder recorded on:

3. Bermuda.

18. Toronto, Birnam.

20. Stuart's Lake.

23. Bullion, Clayoquot.

26. Tobacco Plains, Scarboro.

27. Meaford.

28. Uxbridge, Morden, Oaklank, Bruce Mines, Uplands, Savanne, Collingwood, N. Bruce, Sutton West, Abitibi, Emsdale, Wiarton, West Point, Medicine Hat.

29. Lakefield, Madoc, N. Bruce.

Appearance of Spring Birds, &c.

Robins—Lansdowne, 20th; Dutton, 12th; Lions Head, 22nd; Scarboro, 21st; Emsdale, 25th; Croydon, 23rd; Arden, 20th; Brantford, 18th; N. Gower, 21st; Stony Creek, 11th; Collingwood, 22nd; Bala, 24th; Clontarf, 25th; Montague, 18th; Wiarton, 18th; Ursa, 23rd; Westport, 20th; Jermyn, 20th; St. Stephen, 28th; Brome, 22nd; Sutton, 21st; Lucknow, 20th; Vankleek Hill, 23rd; Agincourt, 18th; Gray Hill, 20th; Big Creek, 5th; Paris, 17th; Uplands, 24th; Meaford, 20th; Cockburn Island, 22nd; Calvin, 22nd (White); Beatrice, 25th; Point Clark, 20th; Tobacco Plains, 3rd; Princeton, 1st; London, 12th; Gravenhurst, 22nd; Grand Manan, 18th; Rockliffe, 26th; Parry Sound, 22nd; Nanaimo, 10th; Pictou, 27th.

Ducks—Beaver Hill W., 29th; Rapid City, 24th; Gretna, 25th; Norway, 25th; Stony Creek, 11th; Victoria (Alta.) 22nd; St. Peters, 24th; Foxleigh, 25th; Gray Hill, 19th; Saskatoon, 24th; Estevan, 28th; Big Creek, 24th; Princeton, 10th; Gravenhurst, 29th.

Juncoes—Beaver Hills W., 30th.

Humming Birds—Winter Harbor, 10th.

Geese—Beaver Hills W., 20th; Rapid City, 19th; Gretna, 23rd; Deloraine, 19th; Norquay, 22nd; Lansdowne, 26th; Estevan, 23rd; Stony Creek, 17th; Agincourt, 30th; St. Peters, 27th; Hillsdown, 3rd; Gray Hill, 19th; Saskatoon, 25th; Tobacco Plains, 1st; Princeton, 6th.

Blue Birds—Dutton, 29th; Scarboro, 23rd; Croydon, 25th; Arden, 21st; Ursa, 12th; Wooler, 21st; Summerside, 26th; Big Creek, 4th; Tobacco Plains, 5th; Princeton, 24th; Paris, 23rd; Meaford, 21st; Brantford, 19th; Clinton, 23rd; Sutton, 25th; Lucknow, 20th; Agincourt, 22nd; Hillsdown, 23rd.

Song Sparrow—Dutton, 18th; St. Stephen, 28th; Paris, 10th; Clontarf, 25th; Pictou, 25th.

Blackbirds—Scarboro, 24th; Arden, 18th, Montague, 21st; Westport, 24th; Paris, 27th; Meaford, 24th; Brantford, 21st; N. Gower, 21st; Clinton, 18th; Bala, 28th; Clontarf, 27th; Sutton, 26th; Lucknow, 23rd; Big Creek, 30th; Princeton, 5th; Pictou, 29th.

Gulls—Scarboro, 26th; Gravenhurst, 28th.

Killdeer—Croydon, 23rd; Arden, 24th; Brantford, 23rd; Clinton, 25th; Sutton, 25th; Lucknow, 18th.

Phœbe—Croydon, 30th; Meaford, 25th.

Bob o'Link—Westport, 27th.

Flickers—Lucknow, 28th.

Swallows—Victoria, 7th.

Frogs—Rapid City, 27th; Deloraine, 26th; Princeton, 22nd; Dutton, 28th; Meaford, 27th; Brantford, 28th; Clinton, 28th; Port Burwell, 27th; Stony Creek, 24th; Sutton, 29th; Lucknow, 27th; Foxleigh, 26th; Gleichen, 22nd; Chilliwack, 2nd.

Aurora recorded:—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Rapid City, Georgetown, IV; Emsdale, II; Midland, Lakefield, Bruce Mines, III; Cockburn Island, Calvin, Savanne, Lucknow, III; Hillview, IV; Bowsman, IV; St. Albans, I; St. Peters, Hillsdown, III; Threehills Creek, IV; Gray Hill, IV; Grenfell, Estevan, Albion, III; Gravenhurst, IV; Swift Current, Saugeen, IV; Port Stanley, III; Pictou, IV.

2. Cartwright, Georgetown, IV ; Chicoutimi, Rat Portage, II ; Savanne, North Bruce, Lucknow, IV ; Oakbank, St. Albans, III ; Victoria, III ; Hillsdown, IV ; Estevan, Albion, IV ; Edmonton, III ; Minnedosa, I ; Qu'Appelle, IV ; Halifax, IV ; Pictou, IV.

3. Point Escuminac, III ; Rapid City, St. Albans, III ; Hillsdown, II ; Threehills Creek, III ; Gray Hill, III ; Grenfell, II ; Albion, II ; Minnedosa, II ; Pictou, IV. Berens River.

4. Georgetown, IV ; Victoria, III ; Albion, IV ; Edmonton, I.

5. Georgetown, IV ; Calvin.

6. Chicoutimi, Calvin, Bowsman, IV ; St. Albans, II ; Hillsdown, III ; Foxleigh, Threehills Creek, III ; Gray Hill, II ; Albion, I ; Gravenhurst, III ; Montreal. Berens River, III.

7. Chicoutimi, Bruce Mines, IV ; North Bruce, Brandon, Threehills Creek, III ; Albion, III ; Edmonton, II ; Halifax, IV ; Battleford, III. Berens River, II.

8. Georgetown, IV ; St. Peters, IV ; Foxleigh, Threehills Creek, IV ; Albion, III ; Swift Current, Quebec, IV.

9. Savanne, St. Albans, IV ; St. Peters, III ; Albion, IV.

10. Savanne, St. Peters, III ; Prince Albert, IV.

11. Calvin, Bowsman, IV ; Gray Hill, III ; Albion, II.

12. Calvin, Savanne, Hillview, III ; St. Albans, III ; St. Peters, IV ; Foxleigh, Grenfell, Estevan, Albion, III.

13. Chicoutimi, Savanne, St. Peters, IV ; Grenfell, Estevan, Albion, IV.

14. Quebec, III ; Montreal, Pictou, IV ; Point Escuminac, Emsdale, III ; Chicoutimi, Cape Magdalene, Bruce Mines, III ; Calvin, Beatrice, IV ; Savanne, North Bruce, Bowsman, IV ; Grand Manan, Rockliffe, IV ; Father Point, II.

15. Hillview, IV ; Bowsman, IV ; Foxleigh, Estevan, Quebec, IV.

16. Cape Magdalene.

17. Grenfell.

28. Estevan.

30. Rockliffe, IV.

31. Georgetown, IV ; Emsdale, III ; Midland, Bruce Mines, II ; Cockburn Island, Calvin, Savanne, *brilliant* ; North Bruce, Hillsdown, Threehills Creek, II ; Bala, II ; Toronto, III ; Gravenhurst I ; Yarmouth, III ; Swift Current, Parry Sound, II ; St. John, IV ; Montreal, IV ; Picton, IV.

FORECASTS FOR MARCH, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 975. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	85	64	10	11	81·2
Lake Superior	82	60	15	7	82·3
Lower Lake Region	100	81	9	10	85·5
Georgian Bay	100	75	10	15	80·0
Ottawa Valley	91	78	9	7	87·8
Upper St. Lawrence	91	74	13	7	85·6
Lower St. Lawrence	98	86	4	8	89·8
Gulf	98	85	9	4	90·3
Maritime Provinces, West	112	90	13	9	86·2
Maritime Provinces, East	112	91	11	10	86·2
Total	975	784	103	88	85·7

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th April, 1905.

MONTHLY and Annual Summaries for the Year 1904, Moose Factory, Ontario—Latitude, N. 51° 16′; Longitude, W. 80° 56′. Height above Sea, 43 feet.

MONTH.	PRESSURE at 32°.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
	Monthly Mean.	Extremes.		Mean.						Extremes.															
		Max.	Min.	9 a.m.	2 p.m.	7 p.m.	Max.	Min.	Mthly	Max.	Min.	9 a.m.	2 p.m.	7 p.m.	Mean.	a.m.	p.m.	p.m.	Mean.	9 a.m.	2 p.m.	7 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°	°	°	°					in.	in.	in.	in.	%	%	%	%	in.	in.
January	30·01	30·86	29·21	9·0	1·0	5·2	4·6	16·5	5·9	28·0	−37·0									59	50	39	49	1·40	0·60
February	30·14	30·71	29·44	12·1	0·1	6·5	4·9	20·3	7·7	29·0	−42·0									41	43	24	36	0·80	0·40
March	30·04	30·54	29·44	5·7	15·5	10·4	22·5	3·7	9·4	44·0	−27·0									64	66	61	64	1·35	0·25
April	30·02	30·48	29·41	24·8	32·0	28·2	38·6	14·8	26·7	70·0	−10·0									66	61	52	60	0·65	0·40
May	29·87	30·40	29·11	45·2	50·9	46·5	60·1	36·7	48·4	78·0	22·0									65	70	71	68	3·19	1·25
June	29·91	30·38	29·34	56·8	63·9	57·4	72·4	43·7	58·0	90·0	31·0									65	65	66	65	1·20	0·32
July	29·76	30·16	29.25	61·2	69·2	65·4	75·4	51·0	63·2	89·0	34·0									67	77	55	66	1·37	0·31
August	29·82	30·10	29·32	56·1	62·7	58·2	69·6	47·7	58·6	81·0	33·0									71	81	68	73	4·86	1·12
September	29·91	30·35	29.94	44·6	52·0	47·8	56·8	38·8	47·8	72·0	27.0									79	89	85	84	4·81	1·02
October	29·92	30·52	29·14	37·0	42.8	38·4	45·8	32·1	38·9	59·0	15·0									78	81	78	79	1·89	0·47
November	29·91	30·53	29·17	22·7	27·8	24·6	31·9	19·3	25·6	46·0	− 5·0									71	71	66	70	1·02	0·20
December	29·94	30·44	29·12	1·7	6.1	2·8	9·7	6·9	1·4	27·0	−33·0									75	62	49	62	0·75	0·25
Year	29·94	30·86	29·04	27·5	35·2	30·7	41·0	19·7	30·4	90·0	−42·0									67	68	60	65	23·29	1·25

MONTH.	NUMBER OF WINDS FROM									Average Hourly.	Maximum.	Direction at time of Maximum.	No. of Gales.	NUMBER OF DAYS										
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation 01 in. or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January	12	3	0	0	15	24	14	8	17	II	V	S.	1	13	8	10	7	7	0	24	0	0	0	1
February	3	10	3	0	6	19	15	17	14	II	V	W.	1	13	15	1	6	6	0	23	0	0	0	1
March	17	7	1	8	5	14	11	17	10	II	V	W.	1	8	8	15	8	9	0	21	0	0	0	2
April	21	21	1	4	3	11	3	15	11	II	V	W.	1	10	5	15	5	5	0	24	0	0	0	0
May	17	22	1	1	3	8	14	11	16	II	V	N.	2	6	7	18	10	3	0	21	4	0	0	0
June	5	39	0	3	4	18	11	0	10	II	VI	S.W.	3	3	13	14	7	0	0	23	2	2	0	0
July	8	19	1	0	9	24	23	5	13	II	V	S.W.	2	3	13	15	7	0	0	23	0	1	0	0
August	11	10	4	0	1	32	19	6	10	II	V	W.	1	2	10	19	19	0	0	11	2	2	0	0
September	4	11	8	1	4	23	16	11	12	II	VIII	S.	3	1	7	22	15	0	0	15	1	0	0	0
October	8	5	1	7	9	19	11	21	6	II	V	W.	1	2	7	22	10	1	0	21	1	0	0	0
November	12	9	3	8	3	13	15	18	9	II	IV	S.	0	6	6	18	7	5	0	23	1	0	0	0
December	5	2	0	3	10	26	13	25	4	II	V	N.	2	4	16	11	7	7	0	24	0	0	0	1
Year	123	149	26	35	72	231	165	154	132	II	VIII	S.	18	71	115	180	108	43	0	253	11	5	0	5

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

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Monthly Weather Review.

VOL. XXIX. APRIL, 1905. No. 4.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

Over the Lower Mainland and Islands of British Columbia the weather was very fine until about the 25th, then cold with several frosts. Over the Upper Mainland it was for the most part fine and cold. The rainfall was unusually scant in nearly all localities, a very dry month being experienced generally. At Victoria the rainfall was the smallest recorded since 1877 and less than one-seventh of the usual amount. In the fruit belt the outlook is for a heavy yield.

In the North-West Territories also there was a marked absence of precipitation, fostering the conditions favourable for forest and prairie fires, and these in some localities caused considerable damage, especially along the Saskatchewan River where much standing timber, together with cut logs and lumber camps were destroyed. Prince Albert reports that the Saskatchewan River was seven feet lower than on the 1st of May, 1904.

Between the 26th and 28th a very heavy gale prevailed attended in some localities by a heavy fall of snow and in others by severe dust storms.

Manitoba.—A very dry month, but spring generally about two weeks earlier than in the preceding year; at the close of the month, all the wheat and about seventy-five per cent of other grain had been sown. Spring flowers were in bloom and spring birds had arrived.

Ontario.—The weather in this Province was somewhat cooler than usual, and although it was quite mild during the first three or four days, also about the 9th to 10th, and 19th to 30th the nights were cold and frosts were of frequent occurrence. Much bright sunshine was recorded on the 1st and 2nd, also from the 9th to 13th, 17th to 19th, 22nd to 27th, and during the last two days; nevertheless it was somewhat below the average. Showers, which were mostly rain, but sometimes snow, were frequent during the intervening periods; they were mostly light, however, and the total precipitation was below the average. By the end of the first week frost was out of the ground, and a few days later ploughing and seeding were possible. Owing to the low temperatures prevailing, vegetation made little or no progress until late in the month, and on high lands the absence of rain also retarded the growth of grain. Reports regarding the condition of fall wheat were generally favourable. Muskoka Lake was clear of ice on the 25th and Lake Simcoe on the 20th. Large quantities of ice could still be seen on Lake Huron on the 30th. Most migratory birds were late in their arrival, and the blooming of wild plants was also unusually late.

Quebec.—A fair month, with the temperature rather above the average and a marked deficiency in precipitation. Quebec City reports as follows: The greater part of April was fair and cool with a few warmer days toward the end of the month. The temperature was one degree above the average and the precipitation half an inch below. Rainfall on ten different days and snow on six, the amount being unusually small. Navigation opened at the beginning of the last week, when the river was clear of ice. Farming operations in the vicinity of Quebec had scarcely begun and vegetation was rather backward.

New Brunswick. The weather of the month was very fine and mild with the precipitation everywhere greatly below the average. No heavy gales occurred, but at St. John the wind record gave three thousand miles in excess of that of April, 1904. Freshets were usually light and lumber drives much hindered for want of rain. Buds began to show on the trees during the last week, but vegeta-

tion was slow and nearly everything was backward. Sussex reported one foot of snow still in the woods at the close of the month and at Parrsboro banks of from eight to ten feet remained in shaded places.

Nova Scotia.—The weather of the month was for the most part fine and dry, the precipitation being unusually light. Sharp frosts were very frequent at nights and in most localities vegetation was backward. Rivers were reported too low for the lumbermen. Heavy banks of snow still lay in the woods on the 30th and large fields of ice were reported off the eastern coasts throughout the month. Three moderate gales were experienced.

Prince Edward Island.—Much the same weather conditions prevailed in this Province as in Nova Scotia. The ground was reported bare of snow in and around Charlottetown by the middle of the month, but on the 30th there were large patches of drifted snow still in outlying districts. Charlottetown Harbour was clear of ice by the 23rd.

ATMOSPHERIC PRESSURE.

The range of departure from normal of the mean pressure for April was 0·36 of an inch, the extremes being +0·13 of an inch at Banff, N.W.T., and—0·23 of an inch at Ottawa, Ont., and Quebec, Que. Mean pressure was below the normal in Ontario, Quebec, the Maritime Provinces and the greater part of British Columbia, but exceeded it in the North-West Territories and a part of Manitoba.

HIGH AREAS.

During April eleven anti-cyclonic systems traversed the Continent, and with very few exceptions, moved from the far North-West to the Middle Atlantic Coast.

For the most part these systems were of moderate intensity, but three of them were pronounced.

The most important area with barometer readings between 30·40 to 30·76 inches over Canadian Territory appeared over Yukon on the 12th and passed southeastward to Kansas, reaching there on the 18th. Thence it moved eastward and off the Middle Atlantic Coast during the 19th. Severe frost accompanied this area in the North-West Territories and Manitoba.

LOW AREAS.

Fifteen areas of low barometric pressure were sufficiently well marked to permit their paths being traced. The courses followed were well distributed over the continent with perhaps a predominance of movement from the North Pacific to Mexico and thence northeastward and over the Gulf of St. Lawrence.

Although many of the areas were very energetic and barometric readings were often less than 29·50 inches, gales were infrequent and for the most part of moderate force.

The minimum barometric reading reduced to sea level was 28·60 inches at Belle Isle, and occurred during the presence of a very energetic area over the Gulf of St. Lawrence.

The accompanying precipitation was nearly everywhere light, and for the most part less than average. A few snowfalls occurred in all districts but with the exception of a local fall in the North-West Territories on the 27th and 28th the amount was inconsiderable.

WINDS.

In British Columbia on Vancouver Island and over the mainland the directions were largely variable. There were five days with strong and six with fresh breezes and one gale but light to moderate winds predominated.

In the North-West Territories the direction favoured somewhat the south and west. There were four days with strong and sixteen with fresh breezes and one gale.

In Manitoba the north and west directions were most in evidence with eight days of strong and thirteen of fresh breezes and one gale.

In the Lake Region the westerly direction was the most general with six days of strong and twelve of fresh breezes and two moderate gales.

In the Ottawa and Upper St. Lawrence Valleys the westerly direction likewise predominated with eleven days of strong and fourteen of fresh breezes.

In the Lower St. Lawrence Valley and the Gulf the direction was mainly westerly with ten days of strong and eleven of fresh breezes and four gales.

In the Maritime Provinces the south and west directions were mostly experienced with eight days of strong and eleven of fresh breezes and three moderate gales.

Owing to the lateness of the season there was little navigation during the month except in the Maritime Provinces and the display of Storm Signals in the Lake Region and in the St. Lawrence Valley was deemed hardly necessary.

In the Maritime Provinces the moderate gales experienced occurred on the 3rd, 6th and 15th, the latter only being warned.

BRIGHT SUNSHINE.

Bright Sunshine was below the average amount in all portions of Ontario but elsewhere over the Dominion the average amount was generally exceeded, noticeably so in British Columbia. The percentage of the possible duration ranged from 59 at Indian Head to 38 at Woodstock.

TEMPERATURE.

The temperature ranged from average to 1 and 2 degrees below over the greater portion of Ontario while elsewhere over the Dominion it was very generally above the average, the most pronounced positive departures being from 3 to 5 degrees in parts of Quebec and New Brunswick. 3 degrees in northern portions of Alberta and Saskatchewan, 3 degrees on Vancouver Island.

The highest and Lowest temperatures in each Province during April, 1905, were :

British Columbia,	83° ·2 on 24th at Alberni,	11° ·4 on 13rd at Stuart's Lake.
N. W. Territories,	86° ·0 on 25th at Onion Lake.	1° ·0 on 14th at Pincher Creek.
Manitoba,	79° ·0 on 26th at Morden,	6° ·0 on 13th at Oakdale Park.
Ontario,	82° ·0 on 27th at Paris,	0° ·0 on 18th at White River.
Quebec,	74° ·0 on 2nd at Chicoutimi,	14° ·0 on 18th at Chicoutimi.
New Brunswick,	73° ·0 on 26th at St. Stephen.	19° ·0 on 2nd at Dalhousie.
Nova Scotia,	68° ·0 on 27th at Windsor,	10° ·0 on 3rd at Port Hastings.
Prince Edward Island,	62° ·0 on 30th at Summerside.	20° ·0 on 3rd at Hamilton.

PRECIPITATION.

The normal precipitation was slightly exceeded in a few localities in the interior of British Columbia and in one or two isolated spots elsewhere, otherwise it was everywhere below the average. In British Columbia the chief deficiencies occurred on the Islands and over the Lower Mainland. Victoria recorded a tenth of the usual amount, Rivers Inlet and North Nicomen a third less and New Westminister less than half the average quantity.

In the North-West Territories the deficiency was from a few tenths to about an inch. In Manitoba more than an inch in most localities ; in Ontario from half to over two inches ; in Quebec from one-tenth to an inch and a quarter, and in the Maritime Provinces from one to over three inches.

A few falls of snow were experienced in all the Provinces, but no large amounts were recorded except during the snowstorm between the 26th and 28th in the North-West Territories which however, was confined to a circumscribed area.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder-storms.	No. of fogs.
BRITISH COLUMBIA				in.	in.	in.	in.	°	°		°		°		°	°	%																							
Victoria	48	24	123	19	85	29·99	30·12	29·59	0·83	50·3	+ 3·2	14	71·0	23	31·7	8	14·3			5	5	73	75	19	20	27	327	138	18	223	720	6·1	17·5	13 W	0·21	2·03	0·10	1	19	0	0	0
Barkerville	53	2	121	35	4180	29·93	30·39	29·38	1·01	37·0	+ 2·2	17	66·0	23	12·0	3	21·4			6	5	1	0	0	1	7	5	0	0	16	60				2·18	+ 0·17	0·60	8	21	1	1	0
Agassiz	49	14	121	31	52			46·2	+ 0·2	16	83·0	23	30·0	21	11·3			4	0	30	0	0	0	0	0	36		21	0	0	90				4·86	0·29	0·61	17	13	0	0	0
Port Simpson	54	31	130	26	26	29·92	30·37	29·51	0·86	44·5	+ 1·9	18	64·0	1	26·6	14	14·1			6	11	5	9	3	3	10	5	4	11	10	60		15·1	27 W	6·68	1·01	1·28	18	12	0	0	0
Revelstoke	51	0	118	6	1476			45·2		6	70·0	21	25·0	16	23·0																				0·78	—	0·42	7	20	0	0	0
Kamloops	50	41	120	29	1193	29·89	30·12	29·41	0·98	50·9	+ 2·7	12	82·0	21	23·5	3	27·7			5	7	0	0	6	2	5	1	5	1	10	60		16·0	6·7	0·16	- 0·09	0·28	3	27	0	0	0
Princeton	49	29	120	29	1650			45·6		8	80·0	21	18·0	10	31·8																				0·78	—	0·37	7	23	0	0	0
Pilot Bay	49	39	116	55	2000																																					
Rivers Inlet	51	39	127	19	20	30·01	30·15	29·63	0·83	46·1	+ 2·1	11	71·1	18	32·1	6	16·8	41·2	81	6	1	0	0	16	7	0	9	15	0	13	90	11	IV	I S	6·83	1·98	3·68	12	17	0	0	0
Stuart's Lake	54	28	124	12	1800			32·1	+ 0·7	11	59·0	6	11·4	13	26·3																				1·01	+ 0·27	0·38	8	23	1	0	0
Coldstream	50	14	119	15	1246			48·2	+ 2·8	10	80·0	21	24·0	9	26·2																				0·10	+ 0·01	0·29	7	23	0	0	0
a Nanaimo	49	10	123	57		29·89	30·27	29·41	0·83	48·3		5	70·0	21	29·5	3	20·1	43·0	78	5	2	1	5	9	12	3	0	5	11	38	90	1·5	17·3	9 NW	1·02		0·22	12	18	0	1	0
Chilliwack	49	10	121	57	21	30·01	30·12	29·52	0·90	51·5		8	83·1	21	31·5	8	22·8	43·6	73	5	2	5	15	11	14	13	15	11	3	0	90				1·53		0·36	12	18	0	0	0
Port Bobs	50	32	128	3				44·9		9	63·0	21	30·0	14	15·1							0	2	0	1	5	10	5	1	0	30				1·21		0·77	13	17	0	0	0
Midway	49	0	118	46	1800																																					
Enderby	50	32	119	7	1180																																					
Nicola Lake	50	9	120	39	2120			45·5	+ 1·6	10	78·0	21	20·0	3	27·5																				0·58	0·10	0·19	1	26	0	0	0
West Kootenay	49	20	117	50																																						
Garry Point	49	21	123	17				47·6	+ 1·4	10	71·0	21	31·0	2	16·7							1	6	10	6	9	5	11	20	22	90		18·7	8 NW	0·78	1·74	0·23	6	4	0	0	1
Tobacco Plains	49	1	115	5	2370			46·6	+ 2·0	10	76·0	25	19·0	11	25·9																				0·25	0·63	0·13	3	25	0	0	0
a Vancouver	49	17	123	5		29·86	30·28	29·31	0·97	48·3		1	71·0	25	28·5	2	21·1	42·3	71	5	3	1	6	12	3	2	6	9	11	7	60	1·1	10·5	25 W	1·21		0·26	12	16	0	0	0
New Westminster	49	13	122	54	330	29·98	30·10	29·53	0·87	50·2	+ 2·0	11	78·8	21	30·5	3	21·2			5	5	3	1	15	0	1	12	7	3	12	60		8·1	26 SW	1·36	2·15	0·55	11	17	0	0	0
a Ladner	49	5	123	4				47·6		6	75·0	23	21·0	1	25·5																				0·10		0·20	3	27	0	0	0
North Nicomen	49	12	122	2	59			51·3	+ 3·0	13	80·0	21	32·0	10	23·1																				2·07	3·86	0·62	10	17	0	0	0
Quesnelle	52	59	122	30	1700			45·5	+ 3·9	11	78·0	21	20·0	10	31·9																				0·36	+ 0·08	0·22	3	24	1	2	0
Clayoquot	49	11	125	47	10			47·1		6	65·5	21	30·5	2	16·1																				1·26		1·51	10	20	9	0	0
Cranbrook	49	30	115	50	2000																																					
Massett	53	58	132	9	30			48·2		9	60·0	22	34·0	3	13·5							8	12	16	10	2	3	2	7	0	60				2·05		0·70	12	19	0	0	0
Bullion	52	45	121	55	2775			41·5		8	71·0	21	20·0	14	26·8																				0·98		0·16	8	22	0	0	0
Bella Coola	52	10	126	54	150			48·1		7	75·0	19	23·0	10	22·9																				0·96	—	0·50	6	24	0	0	0
Cowichan	48	25	123	12	170			47·9		1	71·4	21	27·0	3	21·8																				0·42		0·15	11	19	0	0	1
Nelson	49	29	117	21	1760			46·7		1	76·0	21	25·0	9	23·3																				1·16		0·44	8	16	0	1	0
Matsqui	49	7	122	16																																						
Okanagan Mission	49	52	119	29	1200			48·1		6	79·2	25	22·0	3	28·5																				0·26		0·11	5	24	0	0	0
Alberni	49	15	124	49				50·7	+ 3·0	11	83·2	21	28·9	10	21·6																				1·72	3·1	0·42	11	18	0	0	0
Kuper Island	48	51	123	38	40																																					
Cape Scott	50	48	128	27				44·5		7	60·0	22	30·5	14	15·4																				3·37		0·69	17	13	0	0	0
Glacier	51	14	117	29	1072																																					
Golden	51	46	116	55	2550			48·4		4	77·0	25	20·0	9	28·8																								1·26	0	0	0
Spence's Bridge	50	25	121	30	760																																					
Bamfield	48	50	125	9		30·00	30·38	29·62	0·76	50·7	—	3	68·5	22	31·0	3	19·2	45·7	77	3	3	10	1	9	1	3	0	18	2	13	90				1·55	—	0·55	10	20	0	0	1
Big Creek	51	40	123	0				38·4		1	70·0	22	12·0	15	30·8																				0·49	—	0·26	5	25	0	0	0
Nickel Plate	49	30	120	0	5400			36·2		1	61·0	24	12·0	3	18·2																				1·68		0·44	7	23	0	0	0
Thetis Island	49	0	123	40				47·2	—	1	69·1	24	29·7	6	19·7																				0·63	—	0·17	12	18	0	1	0
Hedley											79·0	21	30·0	3																				0·71		0·32	5	25	0	0	0
Kitamaat	53	59	128	42																																						
Rossland	49	5	117	48	3400			44·4		2	75·0	24	23·0	3	22·9																				1·45	—	0·60	6	24	0	0	1
*Port Essington	54	9	129	55	10			46·6		1	65·0	19	30·0	16																					7·07	—	1·35	15	15	0	0	0
N. W. TERRITORIES																																										
Medicine Hat	50	1	110	37	2161	29·94	30·18	29·36	1·12	45·8	+ 1·3	21	80·0	24	17·7	14	28·9			4	2	0				9	3	10		8	16	60		18·3	28 NW	0·30	0·36	0·13	3	27	0	0	1
Edmonton	53	33	113	30	2158	29·91	30·50	29·28	1·22	43·3	+ 3·0	22	84·0	24	10·0	11	29·1			5	3	3	5	10	7	2	2	5	19	6	60		37·9	16 E	0·01	0·87	0·01	1	26	4	0	0
Qu'Appelle	50	30	103	17	2115	29·97	30·66	29·30	1·36	38·7	+ 1·1	22	75·5	26	10·4	13	28·4			4	12	3	5	1	3	9	8	6	11	11	60		11·6	28 SW	0·68	— 0·17	0·28	6	22	1	0	0
Calgary	51	2	114	2	3389	29·96	30·16	29·28	1·18	39·5	0·2	21	78·0	24	2·0	14	28·1			5	4	3	8	0	13	3	2	11	12	8	60		15·0	27 S	0·80	+ 0·14	0·50	5	25	0	0	0
Prince Albert	53	10	106	0	1432	29·91	30·52	29·12	1·40	38·7	+ 2·2	20	78·0	26	5·5	12	27·7			5	8	11	2	7	7	6	1	5	7	11	60		12·0	26 E	0·35	0·37	0·20	3	23	0	0	0
Battleford	52	41	108	20	1620	29·99	30·66	29·22	1·44	40·8	+ 2·8	14	81·0	24	9·0	14	29·1			5	0	100	5	112	80	109	23	32	171	88	720	7·7	28·3	27 NW	0·10	0·40	0·04	1	23	2	0	0
Banff	51	10	115	35	4512	29·98	30·52	29·32	1·20	37·9	+ 1·8	10	70·0	21	12·0	3	25·1			5	2	4	1	4	0	0	22	7	1	18	60		9·0	12 NE	0·56	0·51	0·14	25	22	1	1	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with ·01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
ONTARIO—*Con.*	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																							
Parry Sound	45 19	80 0	635	29·87	30·54	29·27	1·27	40·3	+ 1·3	29	75·0	28	20·0	1	16·6			6	6	45	50	4	80	27	290	126	80	16	720	9·2			0·99	– 0·93	0·47	5	23	1	1	0
Owen Sound	44 34	80 55	597					41·6	+ 1·2	26	75·5	28	23·0	12	17·8																		0·95	+ 1·41	0·24	9	21	0	1	0
Beatrice	45 8	79 20	806					37·6	+ 0·9	29	69·5	28	16·0	1	20·4			4	3	3	1	0	5	8	10	3	28	32	90	1	III	29 SW	1·00	– 1·11	0·33	6	24	0	0	0
Coldwater	44 38	79 40	600					39·6	– 1·4	18	75·0	28	21·0	20	22·5																		0·25	+ 1·79	0·25	2	26	0	0	0
Gravenhurst	44 54	79 20	770					38·1	– 1·6	34	70·0	28	14·0	1	22·2			5	0	4	4	1	9	6	6	26	14	7	90	11	V	19 SW	0·86	+ 0·75	0·38	8	17	2	1	0
Haliburton	45 1	78 28																																					
*Point Clark	44 5	81 44	595					39·6	+ 0·8	32	72·0	29	28·0	16				3	0	38	3	2	0	30	3	1	10	0	9	IV	IX	17 NW	0·90	+ 1·06	0·65	2	28	0	1	0
Birnam	43 2	81 55	600					41·8	+ 1·0	22	73·3	28	24·2	15	16·1					16	1	2	1	6	13	6	10	2	60				1·80	– 0·19	1·11	9	21	1	1	1
London	42 59	81 13	808	29·90	30·50	29·40	1·10	42·8	+ 1·6	21	73·5	28	21·5	16	19·9	31·6	71	5	5	6	5	1	7	4	16	11	37	0	90	1	II	3 NW	2·02	– 0·44	0·90	12	14	0	1	0
Port Stanley	42 40	81 13	582	29·94	30·48	29·49	0·99	39·6	– 2·5	31	61·2	27	22·5	12	17·2			6	6	7	5	6	4	2	8	10	18	0	60		20·0	17 NW	2·03	– 0·31	1·24	13	14	0	2	6
Woodstock	43 8	80 47	980	29·90	30·47	29·44	1·03	41·5	– 1·3	31	72·5	28	22·0	16	18·8			1	3	51	11	10	11	29	123	130	218	107	720	11·1	25·0	47 SW	1·51	– 0·33	0·69	6	24	0	0	0
Port Dover	42 47	80 13	635					40·4	– 1·9	25	66·2	28	23·1	16	15·4																		1·89	– 0·44	1·35	9	21	0	0	0
Pelee Island	41 50	82 38	585					39·7	– 1·4	25	66·0	28	25·0	22	8·0																		1·07	– 2·02	0·43	5	25	0	0	0
Paris	43 12	80 25	840					41·3	– 2·4	14	82·0	27	18·0	16	30·0																		1·96	– 0·16	0·90	8	22	0	0	0
Calvin	46 15	78 18						38·2	– 2·5	10	73·5	28	19·2	22	22·6																		0·99	0·65	0·42	5	24	1	1	1
Agincourt	43 47	79 16						40·2	– 2·6	10	66·0	29	19·0	16	21·0																		1·15	1·09	0·80	3	27	0	1	0
Hamilton	43 16	79 54	303					43·1	– 0·2	29	76·0	28	24·0	13	18·8																		0·48	+ 1·74	0·28	2	28	0	0	0
Port Hope	43 56	78 20						37·8	—		8 66·0	29	22·0	1	18·0																		1·13	1·14	0·42	5	23	0	0	0
Kinmount	44 45	78 38						36·8	—		8 70·0	27	10·0	22	22·3					12	7	2	1	0	17	12	9	0	60				0·90	—	0·33	5	25	0	1	0
Cockburn Island	45 47	83 18	610					37·4	—		7 69·0	27	31·0	13	19·7					8	1	5	1	3	6	10	20	3	60				2·82	—	1·41	6	24	0	1	1
Chatham	42 23	82 12	595					43·3	– 1·9	18	71·0	28	24·0	18	18·9																		1·75	– 0·42	1·53	2	28	0	0	0
Meaford	44 37	80 37						39·5	—		7 75·0	29	23·0	22	16·8																									
Listowel	43 44	80 58																																					
Bruce Mines	46 18	83 55	595					37·4	—		7 73·0	26	19·0	18	20·0																									
Rat Portage	49 48	94 32	1102					36·7	—		6 72·0	25	12·0	13	21·1																		2·14	—	0·47	9	21	0	0	0
Sturgeon Falls	46 16	79 54																															0·04		0·04	1	28	2	0	0
Uplands	45 18	79 25																																					
Toronto	43 40	79 24	350	29·90	30·54	29·43	1·11	38·2	– 0·2	18	70·6	26	11·8	22	25·5																		1·23	– 1·09	0·38	6	24	0	1	0
Welland	42 59	79 17	425					41·2	0	6	64	67·0	29	21·0	17	14·2	31·0	66	6	2	91	21	57	18	133	99	125	171	5	720	11·0	19·3	19 SW	1·43	– 0·97	0·99	5	17	1	2	1
Peterborough	44 17	78 19	722					42·6	– 0·9	18	73·0	28	23·0	16	21·3																									0
Lindsay	44 20	78 45	872	29·87	30·57	29·45	1·12	40·4	– 2·0	31	73·0	25	22·0	22	22·1																									0
Deseronto	44 11	77 4	264					40·6	– 0·4	21	71·6	28	16·0	22	22·0			6	8	5	2	3	2	3	17	13	28	17	90	11	III	3 S E	0·76	1·11	0·35	4	26	0	0	0
Lakefield	44 25	78 15						41·2	– 1·8	21	71·0	28	21·0	22	22·0					16	1	8	1	5	6	33	15	2	90	11	VI	17 NW	0·90	– 0·78	0·45	8	20	0	1	0
Kingston	44 13	76 29	285	29·87	30·18	29·45	1·13	41·0	– 0·1	20	69·0	28	23·0	22	18·8																		0·10	– 1·91	0·10	1	21	0	0	0
Clontarf	45 23	77 9						38·9	– 2·4	31	65·2	27	21·7	22	16·2			6	8	7	6	2	4	1	15	18	3	1	60		15·8	21 NE	0·64	– 0·80	0·37	4	26	0	0	0
Ottawa	45 26	75 42	294	29·79	30·44	29·46	0·98	40·8	+ 0·2	18	75·0	26	14·8	22	24·0																		1·54	– 0·41	0·53	8	17	0	0	0
Rockliffe	46 9	78 6	557	29·84	30·55	29·33	1·22	41·8	+ 0·6	22	73·0	26	22·0	2	19·7			5	3	6	2	6	1	6	12	13	14	0	60		III	19 SW	0·74	– 1·01	0·32	4	24	0	0	0
*Sarnia	42 59	82 24	586					39·1	+ 0·4	28	76·0	28	19·0	18	22·9			6	6	5	2	1	0	2	11	8	8	23	60				0·95	– 0·91	0·35	8	17	0	0	0
Stratford	43 2	81 0	1191					39·7	– 3·3	11	75·0	28	19·0	18						16	4	2	3	8	9	7	9	32	90				2·01	– 0·53	0·37	6	21	0	0	1
Lucknow	43 56	81 30						40·9	– 0·2	38	70·0	27	21·0	22	17·2																		0·92	– 0·68	0·92	2	28	0	0	1
White River	48 35	85 16	1252	29·89	30·68	29·44	1·24	40·1	– 2·0	18	74·5	28	21·2	12	19·7																		1·80	– 0·45	1·18	7	23	0	0	0
Port Arthur	48 27	89 12	644	29·93	30·59	29·47	1·12	30·9	– 2·4	16	61·0	25	0·6	18	20·2			6	9	34	46	15	55	23	79	105	249	111	720	5·7	14·0	16 NW	1·95	– 0·18	0·41	11	18	18	1	1
Stony Creek	43 13	79 45	292					35·2	+ 0·7	25	67·0	25	16·0	18	18·3			5	7	63	84	65	64	5	21	71	277	70	720	5·6	7·1	2 E	1·05	– 0·25	0·25	15	12	0	0	0
*Otonabee	44 20	78 18	671					43·3	– 0·9	23	76·0	28	25·0	16	20·4			4	1	1	5	20	0	4	13	28	16	3	90	III	VI	30 W	1·32	– 0·35	0·58	8	21	0	0	1
Windsor	42 20	83 1	625					42·1	– 1·7	10	67·0	27	25·0	22						2	1	7	2	0	29	8	38	0	90				1·60	– 0·86	1·06	6	24	0	0	0
Alton	43 51	80 5	1250					44 1	– 1·1	30	73·0	29	27 0	8	17·3																		1·03	– 1·04	0·27	3	27	0	0	0
Guelph	43 33	80 16																															2·26	+ 0·40	1·55	7	23	0	0	0
North Bruce	44 23	81 25						41·3	– 0·3	18	71·0	28	21·0	19	19·3																									
Collingwood	44 30	80 15	595					39·1	1·7	17	70·0	28	25·0	12	—			5	6	6	2	3	1	4	0	22	6	16	60				1·29	– 0·16	0·50	6	24	0	0	0
Rockwood	44 28	80 36	1339					40·3	– 0·8	13	75·0	29	21·0	16	14·5					14	2	5	2	12	24	15	16	0	90				0·61	– 1·02	0·15	6	22	1	1	1
Bala	45 0	79 30	740																														0·56	– 0·68	0·15	10	18	0	0	0
Orillia	44 34	79 24	775					39·8	+ 0·1	22	72·0	28	17·0	1	20·1																									
Saugeen	44 30	81 21	656	29·90	30·56	29·31	1·22	39·6	– 0·8	29	74·0	28	21 6	12	18·5			6	5	8	1	9	7	4	7	14	3	7	60				1·14	– 0·90	0·30	8	17	0	1	0
St. Catharines	43 10	79 17																															0·79	– 0·99	0·29	7	18	0	1	0
Walkerton	44 7	81 8																																					
Renfrew	45 26	76 39						41·7	+ 0·1	18	76·8	26	16·8	22	23·5	33·3	65	5	0	8	4	4	2	6	6	40	19	1	60	III	V	17 NW	0·75	– 0·87	0·31	6	20	1	0	0

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PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING APRIL, 1905.

STATION	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Goldstream Lake	0·98	10	20	0·35	25					
Coquitlam	1·39	6	24	0·66	25					
Naas Harbour	1·15	7	23	1·13	2					
Nanaimo	0·84	4	26	0·60	15					
Royal Oak	0·63	6	24	0·20	25					
Somas River	1·07	9	21	0·38	15·16					
Sooke Lake	1·10	6	21	0·38	23					
N. W. TERRITORIES—										
Magrath	0·20	3	27	0·20	14	11·0	2	7·0	13 27	
Regina	0·12	1	25	0·12	28	1·0	1	1·0	11	
Hamley	0·33	3	26	0·27	28	"	2	"	28	
Innisfail	0·19	2	26	0·15	28	1·0	3	1·0	11	
Last Mountain	0·00	0	26	0·00	.....	6·0	4	1·5	13	
Dirt Hills	0·00	0	29	0·00	.....	2·0	1	2·0	28	
Bruederheim	0·01	1	29	0·01	22	.....	...	.....	.....	
Beaver Hills, W	0·09	1	28	0·09	21	.....	...	.....	.....	Aurora, 1, 2.
Coutts	R	—	27	R	—	3·0	2	3·0	12-13	
Stirling	—	—	26	—	—	4·0	4	4·0	12-13	
							3			
MANITOBA—							1			
Gretna	0·23	1	27	0·23	27	"	2	"	29	
Belmont	0·09	2	21	0·07	8	"	1	"	3	
Cartwright	0·08	1	28	0·08	28	"	1	"	14	13th, Min. temp. 8°.
Deloraine	0·02	1	24	0·01	26	0·7	2	0·5	15	
Norquay	0·10	1	29	0·10	9	.....	.....	.....	.....	
Rapid City	0·50	1	18	0·50	8	0·5	9	0·5	1	Aurora, 1, 11, 25.
ONTARIO										
Princeton	1·56	5	25	1·03	20	.....	.....	.....	.....	
Ennismore	2·90	2	27	1·70	10	"	1	"	16	
Orangeville	1·11	3	23	0·73	11	6·1	4	4·2	21	
Ursa	1·32	7	23	0·45	29	2·5	3	2·5	21	
Westport	1·10	3	26	0·52	29	1·0	1	1·0	21	
N. Williamsburg	1·32	5	24	0·75	11	.....	.....	.....	.....	Great snowfall on 14th.
Lion's Head	1·16	5	23	0·50	4	"	2	"	.....	
Dutton	1·07	3	25	0·90	19	"	2	"	.....	
Deer Park	1·22	3	25	0·95	20	0·8	3	0·8	21	
Wiarton	0·48	2	27	0·31	3	3·3	6	3·3	21	Thunder storm, 29th.
Aurora	0·48	5	23	0·20	28	2·5	1	2·5	21	Thunder storm, 29th.
Montague	1·22	4	25	0·48	29	2·0	1	2·0	21	
Scarboro	1·40	4	17	0·98	21	"	7	"	.....	Thunder, 29th.
Midland	0·68	3	23	0·43	3	5·0	4	3·0	21	
Ensdale	0·99	9	20	0·46	3	"	3	"	.....	Thunder, 29th.
Wooler	0·85	3	26	0·61	29	3·0	1	3·0	21	Thunder, 29th.
Jermyn	0·70	1	27	0·70	29	2·0	1	2·0	22	
Smiths Falls	1·01	4	24	0·36	10	2·8	2	2·5	22	
Parma	1·60	6	23	0·68	30	1·0	1	1.0	17	
Lansdowne	0·88	6	23	0·59	30	.....	.....	.....	.....	Thunder storm, 10th.
Georgetown	1·43	6	17	0·83	21	2·0	7	1·0	17	Aurora, 1, 2, 4, 14, 25. Thunder, 3, 29.
Oliver's Ferry	0·96	3	26	0·61	30	2·5	1	2·5	21	
Arden	1·26	8	22	0·36	30	2·0	3	2·0	22	
Sydenham	1·25	3	26	0·70	30	2·0	1	2·0	21	
Westminster	0·88	4	22	0·72	21	"	4	"	.....	
Wyoming	1·20	2	27	1·10	21	"	1	"	.....	
Croydon	0·74	3	24	0·31	29	1·5	3	2·5	16	Thunder, 29th.
Goderich	1·30	4	26	0·50	10	1·0	1	1·0	21	
Watford	1·15	4	26	0·86	20	.....	.....	.....	.....	
NEW BRUNSWICK—										
Point Escuminac	0·13	3	26	0·11	6	2·1	1	2·1	21	
NOVA SCOTIA—										
Port Morien	1·38	4	24	0·52	30	2·0	2	2·0	14-15	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF APRIL, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	0·03	0·36	0·48	0·58	0·68	0·61	0·64	0·62	0·58	0·64	0·67	0·61	0·35	0·01	.
Nanaimo	.....	0·01	0·16	0·18	0·21	0·19	0·17	0·18	0·19	0·14	0·15	0·21	0·18	0·11	0·03	.
Agassiz	.....	...	0·10	0·23	0·41	0·49	0·51	0·57	0·59	0·56	0·50	0·38	0·18	0·07	0·00	..
Battleford	.....	0·19	0·58	0·65	0·70	0·68	0·79	0·70	0·72	0·76	0·77	0·62	0·62	0·32	0·01	.
Indian Head	.....	.....	0·26	0·51	0·82	0·80	0·79	0·79	0·80	0·78	0·80	0·75	0·61	0·37	0·02	
Brandon	.....	..	0·06	0·53	0·68	0·73	0·69	0·68	0·69	0·76	0·74	0·73	0·74	0·49	0·00	
Winnipeg	.....	0·12	0·19	0·62	0·60	0·62	0·66	0·68	0·69	0·70	0·68	0·60	0·58	0·51	0·07	..
Woodstock	.....	.. ..	0·07	0·33	0·41	0·56	0·52	0·54	0·57	0·58	0·53	0·46	0·31	0·13	0·00	
Toronto	.....	... ...	0·15	0·41	0·52	0·53	0·50	0·55	0·54	0·55	0·54	0·48	0·49	0·10	0·12	
Lindsay	.....	0·01	0·10	0·21	0·36	0·47	0·50	0·55	0·45	0·56	0·59	0·51	0·41	0·33	0·19	
Gravenhurst	.....	0·04	0·26	0·47	0·53	0·60	0·66	0·65	0·54	0·54	0·59	0·57	0·60	0·53	0·32	
Kingston	.....	0·02	0·32	0·47	0·50	0·56	0·61	0·60	0·61	0·54	0·50	0·53	0·50	0·27	0·03	.
Ottawa	.....	0·02	0·32	0·55	0·60	0·55	0·52	0·56	0·57	0·51	0·51	0·46	0·39	0·26	0·04	..
Montreal	.....	0·01	0·28	0·44	0·52	0·54	0·51	0·53	0·52	0·54	0·53	0·52	0·41	0·14	0·00	...
Quebec	.....	.	0·21	0·48	0·47	0·56	0·55	0·62	0·63	0·57	0·51	0·43	0·41	0·25	0·01	..
Fredericton	.....	0·15	0·41	0·51	0·66	0·63	0·65	0·60	0·67	0·66	0·66	0·57	0·40	0·22	0·07	....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month. (*Constant sunshine being 1.*)	0·50	0·47	0·34	0·58	0·59	0·54	0·46	0·38	0·45	0·39	0·51	0·45	0·43	0·46	0·42	0·51
Difference from average	+0·11	-	+0·10	+0·07	+0·21	+0·16	+0·07	0·05	0·01	−0·08	-	−0·02	−0·02	−0·03	—	+0·06
Maximum daily amount	0·87	0·81	0·80	0·94	0·88	0·83	0·90	0·82	0·90	0·96	0·92	0·92	0·87	0·91	0·85	0·86
Date	10	30	24	24	17	5	24	22	23	22	23	22	25	28	2	9
No. of days completely clouded	2	3	8	1	2	2	4	5	4	4	1	4	4	7	3	

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Midland, Georgetown, IV ; Rapid City, Beaver Hills, W, II ; Threehills Creek, III ; Esterman, Moose Jaw, Grenfell, Albion, I ; Hillsdown, III ; Meaford, Calvin, Bowsman, IV ; Treherne, Quesnel, Grand Manan, III ; Banff, III ; Barkerville, III ; St. John, III ; Parry Sound IV ; Gravenhurst, II ; Renfrew, IV.

2. Georgetown, IV ; Beaver Hills W, III ; Regina, St. Peter, IV ; Threehills Creek, III ; Chicoutimi, Grenfell, Albion, II ; Madoc, Meaford, Edmonton, III ; Qu'Appelle, III.

3. St. Peters, IV, Threehill Creek, IV ; Foxleigh, Grenfell, Hillsdown, IV ; Chicoutimi, Bowsman, IV.; Aweme, II ; Treherne.

4. Georgetown, IV ; Cartwright, Bowsman, IV ; Aweme, III ; Edmonton, IV.

5. Threehills Creek, IV ; Albion, IV ; N. Bruce, Rat Portage, IV ; Aweme, IV ; Treherne, Gravenhurst, IV.

6. Rat Portage, IV ; Birnam, IV ; Treherne.

7. Albion, IV.

8. Bowsman, IV.

9. Aweme, III.

12. Cartwright, Rapid City, Albion, IV ; Aweme, II ; Battleford, II.

14. Albion, III.; Edmonton, IV.

15. Georgetown, IV.

16. Albion, IV ; Bowsman, IV.

17. Albion, IV.

19. Bowsman, IV.

20. Rapid City, Gray Hill, IV.

21. Aweme, IV.

25. Georgetown, IV ; Rapid City, Gray Hill, IV ; Threehills Creek, IV ; Albion, IV ; Hillsdown, III ; Treherne.

26. Edmonton, III ; Battleford, III.

29. Bowsman, IV ; Aweme, IV.

30. Savanne.

Thunder recorded on :

3. Georgetown.

5. Grand Manan.

8. Deloraine, Oakdale Park.

10. Lansdowne, Birnam.

13. Savanne.

16. Quesnel.

18. Ursa.

19. Port Burwell.

20. London, Brome, Port Stanley.

25. Nelson, Quesnel, Banff, Barkerville.

26. Gatesgarth.

27. Hillview.

28. Point Clarke, N. Bruce, Cockburn Island, Bermuda.

29. Nanaimo, Ursa, Lion's Head, Wiarton, Aurora, Smith's Falls, Searboro, Emsdale, Wooler, Georgetown, Croydon, Brome, Madoc, Uxbridge, Sutton, Meaford, Agincourt, Uplands, Thetis Island, Parry Sound, Port Stanley, Saugeen, Gravenhurst.

Appearance of Spring Birds, &c.

Robins.—Norquay, 2nd; Hamley, 3rd; Beaver Hills W., 21st; Victoria, 23rd; Summerside, 1st; Savanne, 27th; Bowsman, 24th; Qu'Appelle, 3rd; Barkerville, 5th.

Swallows.—Ursa, 24th; Arden, 1st; Norquay, 28th; Victoria, 25th; Shawinigan Falls, 26th; Sutton, 15th Bala, 14th; Agincourt, 26th; Alberni, 5th; Big Creek, 14th; Port Stanley, 2nd; Rivers Inlet, 9th.

Geese.—Ursa, 25th; Arden, 1st; Deloraine, 6th; Bruederhiem, 28th; St. Stephen, 4th; Lakefield, 4th; Beatrice, 5th; Brantford, 3rd.

Meadow Larks.—Lansdowne, 14th; Norquay, 3rd; Foxleigh, 3rd; Knee Hill, 15th.

Wild Ducks.—Arden, 4th; Bruederheim, 5th.

Blackbirds.—Beaver Hills W., 17th; Hillsdown, 18th; Gatesgarth, 12th; Gray Hill, 16th; Calvin, 12th.

Bluebirds.—Beaver Hills, 24th; Gray Hill, 4th; Shawinigan Falls, 3rd; Lakefield, 1st.

Flickers.—Gray Hill, 4th; Big Creek, 11th.

Humming Birds.—Princeton, 22nd; Rivers Inlet, 8th.

Frogs.—Ursa, 17th; Scarboro, 9th; Emsdale, 23rd; Norquay, 7th; Beaver Hills, W., 4th; Hillsdown, 9th; Clontarf, 11th; Savanne, 24th; Princeton, 17th; Grand Manan, 27th; Albion, 6th; Didsbury, 17th; Brome, 12th; St. Stephen, 26th; Rat Portage 26th; Agincourt, 26th.

FORECASTS FOR APRIL, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1012. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per centage.
Manitoba	71	64	1	6	89·2
Lake Superior	88	73	5	10	85·8
Lower Lake Region	110	71	17	19	75·0
Georgian Bay	109	82	11	16	80·3
Ottawa Valley	99	75	13	11	82·3
Upper St. Lawrence	99	78	11	10	84·3
Lower St. Lawrence	111	87	19	5	86·9
Gulf	110	87	10	13	82·9
Maritime Provinces, West	106	75	21	10	80·7
Maritime Provinces, East	106	80	14	12	82·1
Total	1012	775	125	112	82·9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto.
27th May, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. MAY, 1905. No. 5.

AUG 1 1905

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

Over the Lower Mainland and Islands of British Columbia showers occurred generally during the second and third weeks. Near Victoria the rainfall was the heaviest on record for May. Frosts occurred in many localities causing considerable damage to small fruits. Sunshine was about normal. The temperature was fairly high in tha day time during the first and last weeks, but the nights were cool. Over the Upper Mainland the rainfall was less abundant and some light snow also fell. Thunder was reported in a few localities towards the end of the month.

In the North-West Territories the month was marked by strong easterly to northerly winds, and the nights, more particularly during the first two weeks and a part of the last week were quite cold. In the northern and western districts the rainfall was light while in the southern districts it was quite heavy, occurring chiefly during the second and third weeks. Snow also fell about the 10th in eastern districts. Thunderstorms occurred about the 13th and 23rd.

In Manitoba the weather conditions were very similar to those in the Territories, strong winds prevailing during a great part of the month. The precipitation also was excessive particularly in the south. During the first part of the month it was quite cool, snow falling on the 4th and again on the 7th and 10th. The weather cleared about the 16th and become fine and warm for a few days followed by heavy thunder showers on the 23rd and 24th. The remainder of the month was bright and warm. The mean temperature ranged from average to 5° below.

In Ontario the weather during the first few days was fair and cool, except that the temperature was fairly high in the southwestern counties on the 5th. Showers were very prevalent up to the 20th, accompanied in many cases by thunder and lightning and the rainfall was very generally excessive except from the county of Peterborough eastward to Lanark. Fine bright weather continued from June 20th until the 25th with high temperatures in many localities when it again become showery with heavy rain at night. Over the greater portion of the province the mean temperature was between average and 3° below. The winds were mostly southerly to northwesterly and never became more than moderately strong. Light frosts occurred in many places between the 20th and 24th.

In Quebec the weather was cool and windy with many showery days and in some cases snow and hail also fell. The precipitation however was deficient north of the St. Lawrence and in the Gaspé Peninsula. The temperature rose somewhat towards the end of the month, but the mean for the month was a little below normal as in the other porovinces.

In New Brunswick the general conditions were cool, cloudy and showery weather the greater part of the month. The precipitation in most cases was light however, and considerably below average. Heavy frost occurred on the 13th. Inland about 28th the temperature rose to 80° but remained low along the coast. Fog was quite prevalent in the Bay of Fundy.

The weather in Nova Scotia was dull, showery and cool, except from the 21st to the 27th, when it was very fine and quite warm. Light frosts occurred during the early part of the month and after quite a severe one on the 13th the temperature began gradually to rise and temperatures exceeding 75° were recorded before the end of the month.

In Prince Edward Island the weather was cool and windy and frosts were frequent up to the 16th. Higher temperature set in during the last week, but the mean for the month was a few degrees below normal. Thunder showers occurred during the last week.

ATMOSPHERIC PRESSURE.

Positive departures from average mean atmospheric pressure were recorded in British Columbia, Alberta and Saskatchewan, and negative departures in Quebec and the Maritime Provinces. In Ontario and Manitoba the mean pressure was normal. The positive extreme was 0·13 at Barkerville, B.C. and 0·09 at Battleford, Saskatchewan. The negative extreme was 0·11 at St. John, N.B.

HIGH AREAS.

Nine areas of high pressure were charted during the month. Two first appeared in the north-western portion of the continent; three in the western, and four in the northern portion. None of the areas were very energetic, and were in fact chiefly noticeable for their lack of intensity and erratic paths of travel.

LOW AREAS.

Eleven areas of low pressure were charted during the month, their general direction of travel being irregular. Five first appeared over the north-western portion of the continent, five over the western portion and one over the southwstern portion. The western systems were the most pronounced of the series often during their presence covering large portions of the continent when they usually developed two or more foci; widespread and heavy rainfalls were also a marked accompaniment of these systems.

WINDS.

In British Columbia, over Vancouver Island and the Lower Mainland, the direction was mostly variable, favouring somewhaat the south and west. There were at least five days with strong and eleven with fresh breezes and one gale.

In the North-West Territories the direction was variable with seven days of strong and fifteen of fresh breezes and two gales.

In Manitoba the direction was variable, the northerly occasionally being rather persistent. There were eleven days with strong and seven of fresh breezes in addition to five gales.

In the Lake Region the direction was largely variable with a tendency towards the north-west and south-west. There were six days with strong and seventeen with fresh breezes. Gales occurred on Lake Superior on the 8th, 10th and 24th, and locally on Lake Huron, on the 8th, but no general gale was experienced during the month.

In the Ottawa and Upper St. Lawrence Valleys the north and west directions were the most general, with five days of strong and seventeen of fresh breezes.

In the Lower St. Lawrence Valley and the Gulf the north and west directions predominated with seven days of strong and fifteen of fresh breezes and two gales.

In the Maritime Provinces for a few days during the middle of the month the direction remained easterly, otherwise it was for the most part between the north-west and south-west. There were five days of strong and fifteen of fresh breezes and two gales.

In the Gulf of St. Lawrence and in the Maritime Provinces the gales occurred on the 2nd and 10th and they were more or less local, especially the one on the 10th.

The gales which were experienced on Lake Superior were warned, except that of the 4th; the gale of the 8th on Lake Huron was also warned.

TEMPERATURE.

The mean temperature of May has been either just average or from 1° to 8° below the average over the larger portion of the Dominion; Southern Alberta and Saskatchewan alone showing a somewhat larger negative departure, and parts of British Columbia a small positive departure. One of the features of the month has also been the absence of pronounced extremes, no very marked heat terms having occurred, and, on the other hand, the frosts recorded were not, as a rule, severe, except in portions of British Columbia and in the Maritime Provinces.

The highest and Lowest temperatures in each Province during May, 1905, were:

British Columbia,	100° ·0 on 30th at Bella Coola,	17° ·0 on 1st at Nickel Plate.
N. W. Territories,	96° ·0 on 31st at Chaplin.	10° ·0 on 8th at Manor.
Manitoba,	84° ·0 on 24th at Carmen,	13° ·0 on 8th at Hillsview.
Ontario,	83° ·0 on 3rd at Stony Creek,	16° ·0 on 1st at Savanne.
Quebec,	77° ·0 on 25th at Sherbrooke,	27° ·0 on 13th at Father Point.
New Brunswick,	81° ·0 on 26th at Chatham,	11° ·0 on 12th at Moncton.
Nova Scotia,	77° ·0 on 8th at Wolfville,	21° ·5 on 13th at Parrsboro'.
Prince Edward Island.	72° ·0 on 28th at Summerside,	24° ·0 on 13th at Summerside.

PRECIPITATION.

In the northern part of Vancouver Island and Central British Columbia and Alberta the rainfall was deficient. In the southern districts of British Columbia and in Southern Saskatchewan and Manitoba the precipitation was excessive, and this was especially the case between Brandon and Swift Current where it was about double the average amount and was partly snow which fell heavily on the 10th. A snowfall with high winds also occurred in Manitoba on the 4th and again on the 7th. Over most of Ontario the precipitation was also in excess of the average, but there was a deficiency in a section extending from Peterboro eastward to the Counties of Carleton and Lanark, and also in Perth and Oxford Counties. In Quebec and the Maritime Provinces the rainfall was for the most part deficient, particularly in western New Brunswick, while a small excess was recorded in the Gaspé peninsula and in parts of eastern New Brunswick and in Prince Edward Island. The greatest positive departures were Agassiz, 3·8 inches; Qu'Appelle, 2·8 inches; Regina, 2·7 inches; Point Clark, 2·2 inches; Collingwood, 2·8 inches; and the chief negative departures, Rivers Inlet, 1·5 inches; Lakefield, 1·2 inches; Fredericton, 1·8 inches; Halifax, 0·9 inches.

BRIGHT SUNSHINE.

The mean proportion of Bright Sunshine recorded during May was slightly deficient in the N. W. Territories, Manitoba, Ontario and Quebec; in British Columbia, South-west Ontario and New Brunswick an excess was recorded. The extremes of departure from the normal value were +7 per cent at Fredericton, and —6 per cent at Lindsay, Ont.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with ·01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																								
BRITISH COLUMBIA—																																									
Victoria	48 24	123 19	85	29·97	30·32	29·69	0·63	52·6	+ 0·1	10	72·2	26	37·8	18	13·3			67		62	11	17	24	73	229	167	37	94	744	8·4	22·5	8 SW	2·85	+1·54	1·39	13	13	0	0	0
Barkerville	53 2	121 35	4180	29·91	30·23	29·50	0·73	45·9	+ 1·1	17	78·0	30	20·0	1	27·8			5	5	0	1	0	1	7	0	1	0	52	62				2·31	0·28	0·50	10	20	0	0	0
Agassiz	49 14	121 31	52					50·2	+ 4·3	16	84·0	12	34·0	4	37·9			4	0	21	0	0	0	30	0	42	0	0	93				8·46	+3·79	1·69	19	12	0	0	0
Port Simpson	54 34	130 26	26	29·95	30·22	29·37	0·85	49·9	+ 1·5	17	76·0	28	34·2	1	15·6			6	7	5	4	7	2	6	3	12	4	19	62		12·9	11 W	6·38	+1·71	1·33	18	13	0	0	8
Revelstoke	51 0	118 6	1476					50·9	—	7	81·0	31	32·0	12	25·7																		2·94	—	1·00	10	18	0	0	0
Kamloops	50 41	120 29	1193	29·85	30·32	29·16	0·86	57·4			87·0	31	31·0	1	24·5			6	7	9	32	58	16	71	5	29	52	472	744	2·3	11·0	9 NW	0·62		0·16	7	23	0	0	0
Princeton	49 29	120 29	1650					51·2		8	83·0	30	22·0	1	28·9																		1·56	—	0·46	8	23	0	5	0
Pilot Bay	49 39	116 55	2060																																							
Rivers Inlet	51 39	127 19	20	29·98	30·37	29·62	0·75	50·4	+ 0·7	10	80·0	26	35·0	2	16·5	46·8	88	6	9	0	0	9	7	0	15	32	0	30	93	11	IV	22 SW	1·30	−1·58	0·87	16	14	0	0	4
Stuart's Lake	54 28	124 12	1800					46·6	+ 3·0	12	87·0	31	17·7	1	33·3																		1·24	+0·19	0·50	7	24	0	0	0
Coldstream	50 14	119 15	1246					53·4	— 0·6	30	83·0	31	26·0	1	24·2																		2·33	+1·33	1·05	8	23	0	0	0
*a*Nanaimo	49 10	123 57		29·88	30·19	29·56	0·63	53·0	—	6	82·1	26	31·0	1	20·3	45·9	72	5	5	6	17	4	6	3	1	8	24	23	92	6·5	21·7	9 NW	1·52		0·34	12	18	0	0	0
Chilliwack	49 10	121 57	21	29·96	30·35	29·63	0·72	55·2	—	7	82·1	27	35·0	18	20·4	49·2	76	6	7	2	6	18	11	18	25	8	5	0	93				4·47		0·81	15	16	0	1	0
Port Bobs	50 32	128 3						48·6	—	9	69·0	27	35·0	1	12·4																		6·26		1·60	15	16	0	0	0
Midway	49 0	118 46	1800																																							
Enderby	50 32	119 7	1180																																							
Nicola Lake	50 9	120 39	2120					51·2	— 0·4	10	77·0	8	26·0	1	22·1																												
West Kootenay	49 20	117 50																															1·87	+0·57	0·59	7	21	0	0	0
Garry Point	49 21	123 17						52·1	0·0	10	75·0	27	34·0	18	15·6					2	8	9	13	7	2	14	53	7	93	9·1	20·0	6 SW	2·31	−0·10	0·67	10	21	0	1	0
Tobacco Plains	49 1	115 5	2370																																							
Vancouver	49 17	123 5	195	29·83	30·17	29·51	0·61	53·0	—	1	76·7	27	32·9	18	20·0	47·3	71	6	9	1	0	10	6	2	13	12	9	9	62	4·0	8·0	7 W	2·20	—	0·70	10	11	0	2	0
New Westminster	49 13	122 54	330	29·95	30·33	29·64	0·69	54·2	+ 0·2	12	78·5	27	36·7	18	20·0			6	10	4	1	14	0	6	16	4	7	10	62		7·5	17 SW	2·44	−1·11	0·77	12	18	0	3	0
*a*Ladner	49 5	123 4						52·3		6	76·0	26	29·0	17	23·5																		2·20	—	0·75	7	24	0	0	0
North Nicomen	49 12	122 2	59					55·0	+ 0·3	13	80·0	27	33·0	1	20·8																		5·59	+0·40	1·20	13	15	0	0	0
Quesnelle	52 59	122 30	1700					53·9	+ 4·2	10	92·0	31	23·0	2	35·7																		0·82	+0·18	0·37	5	26	0	1	0
Clayoquot	49 11	125 47	40					49·3	—	6	68·5	27	35·5	13	14·2																		3·86	—	1·57	6	25	0	0	0
Cranbrook	49 30	115 50	2900																																							
Massett	53 58	132 9	30					52·9	—	7	70·0	29	37·0	18	18·4					0	3	2	8	2	4	40	3	0	62				6·55	—	1·35	8	23	0	0	0
Bullion	52 45	121 55	2775					49·6	—	8	85·0	31	23·0	2	30·9																		2·26	—	0·68	9	22	0	0	0
Bella Coola	52 40	126 54	150					54·2	—	7	100·0	30	32·0	1	24·9																		0·95	—	0·24	6	25	0	0	0
Cowichan	48 25	123 42	170					51·7	—	2	77·4	26	28·3	1	23·4																		2·79	—	0·82	12	17	0	2	0
Nelson	49 29	117 21	1760					53·5	—	5	84·0	31	30·0	1	26·7																		4·00		1·38	12	19	1	2	0
Matsqui	49 7	122 16																																							
Okanagan Mission	49 52	119 29	1200					51·8	—	7	85·0	31	26·6	1	26·7																											
Alberni	49 15	124 49						54·4	— 0·5	11	88·2	26	28·9	18	25·5																		1·22	—	0·40	7	22	0	0	0
Kuper Island	48 54	123 38	49																														2·14	−0·66	0·67	16	11	0	0	0
Cape Scott	50 48	128 27						47·6	—	7	60·2	28	37·0	18	9·9																											
Glacier	51 14	117 29	4072																														5·56	—	1·27	21	10	0	0	0
Golden	51 16	116 55	2550					50·6	—	4	79·0	28	26·0	1	30·3																											
Spence's Bridge	50 25	121 30	760					59·3	— 1·3	12	89·0	30	34·5	1	26·9																											
Bamfield	48 50	125 9		29·98	30·31	29·75	0·56	51·2	—	3	70·0	27	34·5	18	18·6	38·0	81	4	7	0	0	0	2	1	1	23	6	60	93				5·23			0	0	0		
Big Creek	51 40	123 0						45·9	—	1	82·0	30	18·0	15	31·0																		0·97	−0·52	0·86	3	24	0	1	0
Nickel Plate	49 30	120 0	5400					40·0	—	2	66·0	30	17·0	4	18·1																		2·47	—	0·98	9	21	0	0	3
Thetis Island	49 0	123 40						52·0	—	2	78·4	26	33·0	1	18·4																		1·06	—	0·30	5	24	0	1	0
Hedley								—	—	1	80·0	31	—	—	—																		2·87	—	0·40	13	18	0	0	0
Kitamaat	53 59	128 42						51·5	—	3	81·5	27	32·0	1	19·5																		2·02	—	0·69	13	18	0	0	0
Rossland	49 5	117 48	3400					49·0	—	2	74·5	31	30·2	1	21·1																		1·48	—	0·28	8	23	0	1	0
*Port Essington	54 9	129 55	10					52·4	—	1	85·0	28	38·0	16	—																		2·12	—	0·46	11	20	0	0	0
N. W. TERRITORIES—																																	2·94	—	0·90	11	20	0	2	1
Medicine Hat	50 1	110 37	2161	29·91	30·24	29·54	0·70	52·3	— 2·5	21	82·0	31	30·7	16	24·9			5	3	1	1	13	1	1	4	12	6	23	62		18·3	15 W	5·33	—	1·08	15	16	0	0	0
Edmonton	53 33	113 30	2158	29·89	30·14	29·45	0·69	52·0	+ 0·3	22	82·0	31	27·0	5	30·6			5	3	2	3	3	17	4	0	3	11	19	62		23·8	8 SE	1·13	−0·64	0·32	8	23	0	1	0
Swift Current	50 20	107 45	2439	29·95	30·23	29·54	0·69	49·2	— 2·9	19	79·0	31	26·0	4	23·0			6	4	6	11	9	7	5	2	7	8	7	62		24·0	8 E	1·61	−0·19	0·60	7	4	2	0	0
Qu'Appelle	50 30	103 47	2115	29·92	30·20	29·48	0·72	47·7	— 2·4	22	74·7	31	20·3	4	23·7			6	5	4	6	10	9	1	7	2	12	11	62		11·6	9 E	3·75	+1·76	1·26	11	20	0	0	0
Calgary	51 2	114 2	3389	29·91	30·18	29·50	0·68	47·4	— 1·9	21	80·0	31	24·0	4	27·9			6	5	1	10	2	14	1	2	6	17	9	62				4·79	+2·79	1·66	14	15	0	2	1
Prince Albert	53 10	106 0	1432	29·91	30·19	29·46	0·73	50·2	— 1·0	20	78·5	31	23·5	7	24·2			6	8	10	3	22	8	4	2	2	4	7	62		13·0	15 N	2·06	−0·18	0·90	7	23	0	0	0
Battleford	52 41	108 20	1620	29·98	30·22	29·54	0·68	50·5	— 1·8	14	79·0	31	25·0	4	24·8			4	3	170	16	220	22	14	18	75	105	109	744	7·0			1·56	0·00	0·70	7	25	0	0	0
																																	1·82	+0·09	1·14	9	19	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure. Mean reduced.	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Velocity of wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
ONTARIO—*Con.*	° ′	° ′		in.	in.	in.	in.	°	°		°		°			°																								
Brantford	43 10	80 21	750					53·7	-1·4	24	81·0	25	31·0	20	23·8					26	47	51	121	58	227	122	76	16	744	8·1	15·0	4 E	3·06	+0·64	0·97	6	25	7	0	3	1
Parry Sound	45 19	80 0	635	29·95	30·25	29·58	0·67	50·6	-1·3	29	73·0	16	30·0	1	20·8					15	2	0	9	16	11	12	28	0	93				3·90	+0·82	0·65	12	15	7	0	3	0
Owen Sound	44 31	80 55	597					51·0	-1·1	26	80·0	25	31·0	23	22·9					5	0	0	13	6	11	2	16	41	93	1	V	7 SW	2·47	-0·53	0·66	8	22	6	0	5	3
Beatrice	45 8	79 20	806					50·5	-1·2	30	74·0	25	28·0	10	23·4				6	8													4·20	+0·86	1·25	14	17	6	6	0
Coldwater	44 38	79 40	600					49·9	-3·4	18	80·6	25	25·0	1	27·8																		2·31	-0·61	0·53	10	21	0	0	0
Gravenhurst	44 51	79 20	770					51·4	-1·9	34	78·0	25	26·0	2	23·7				5	3	11	1	11	10	16	4	10	12	16	90	11	IV	20 NW	4·82	+1·11	1·20	11	18	0	5	0
Haliburton	45 1	78 28																																					
*Point Clark	44 5	81 44	595					50·8	+0·3	32	80·0	14	36·0	2					3	0	23	1	4	0	15	7	9	4	0	93	III	VII	7 SW	6·35	+2·17	2·65	7	24	0	7	0
Birnam	43 2	81 55	600					53·7	-1·4	22	79·0	3	29·0	21	18·7						13	2	2	7	11	6	8	6	2	60				2·51	-0·87	0·11	12	19	0	5	1
London	42 59	81 13	808	29·95	30·26	29·59	0·67	54·4	-2·1	22	79·0	3	29·0	21	24·4	47·8	74	5	3	0	1	0	13	5	33	11	30	0	93	1	2 III	7 W	3·62	-0·23	0·82	18	13	0	1	0
Port Stanley	42 40	81 13	592	29·98	30·27	29·65	0·62	51·4	-1·7	32	69·3	3	28·8	21	19·7			5	4	77	61	65	65	13	210	41	140	69	744	8·2	17·3	19 NW	3·72	+0·55	0·68	20	11	0	5	0
Woodstock	43 8	80 47	980	29·96	30·22	29·60	0·62	53·1	-1·3	30	78·0	5	30·2	1	22·5	48·3	84	4	1	34	14	111	78	40	150	84	174	59	744	10·0	19·5	25 SW	2·61	-0·20	0·52	12	19	0	2	0
Port Dover	42 47	80 13	635					52·4	-1·7	29	67·3	13	30·2	1	17·1						1	8	5	2	3	7	0	5	0	31				3·91	+1·22	1·31	18	13	0	3	0
Pelee Island	41 50	82 38	585					55·6	-1·6	24	69·5	27	35·0	1	8·9																		2·79	+0·86	0·91	6	25	0	0	0
Paris	43 12	80 25	840					51·8	-3·8	16	81·0	3	25·0	1	30·3																		3·54	+0·38	0·87	12	19	0	2	0
Bancroft	45 1	77 50						50·3	-1·2	14	76·0	25	26·0	2	24·2																		4·30	+1·23	1·62	10	21	0	0	0
Calvin	46 15	78 48						50·7	-2·4	11	77·8	11	27·6	23	24·4																		4·05	+1·08	0·99	11	17	0	3	0
Agincourt	43 47	79 16						51·4	-3·8	10	79·0	26	29·0	2	21·0																		2·94	-0·72	0·82	7	24	0	4	1
Hamilton	43 16	79 54	103					55·4	+0·1	29	82·0	26	32·0	21	22·3																		2·18	-0·65	1·10	5	26	0	1	3
Port Hope	43 56	78 20						50·6		9	70·0	25	26·0	1	19·4																		4·37	+0·86	1·82	10	21	0	2	1
Kinmount	44 45	78 38						50·8	—	8	78·5	25	25·0	2	25·1																		3·47	—	1·25	10	21	0	3	0
Cockburn Island	45 57	83 18	610					47·5	—	7	72·0	14	29·0	1	19·5						4	2	7	11	4	10	15	8	1	62				2·98	—	1·03	12	19	0	5	4
Chatham	42 23	82 12	595					56·8	-0·3	16	80·0	3	28·0	1	22·5																		3·68	+0·48	1·11	10	21	0	0	0
Meaford	44 37	80 37						52·0	—	7	76·0	26	30·0	1	21·0						12	9	4	3	3	20	4	7	0	62				6·46	—	1·17	15	16	0	7	2
Listowel	43 44	80 58																																					
Bruce Mines	46 18	83 55	595					48·2	—	7	70·0	13	27·0	1	21·3																		3·34	—	0·63	14	17	0	3	0
Rat Portage (Kenora)	49 48	94 32	1102					47·7	—	6	78·0	20	28·4	1	20·0																		2·24		1·10	3	28	1	0	0
Sturgeon Falls	46 16	79 54																																					
Uplands	45 48	79 25						48·7	-2·7	18	76·8	31	22·7	9	27·7						0	0	1	6	0	12	6	6	0	31				3·87	+0·75	1·20	10	21	0	5	0
Toronto	43 40	79 24	350	29·97	30·21	29·63	0·58	52·2	-0·2	64	75·6	25	31·9	1	19·6	43·1	71	6	3	89	61	123	20	181	60	77	120	13	744	9·3	18·0	1 E	3·23	+0·26	0·84	15	15	0	4	4
Welland	42 59	79 17	425					55·0	-1·1	18	82·0	25	33·0	1	24·5																		1·60	-1·30	1·28	4	27	0	0	0
Peterborough	44 17	78 19	722					52·1	-3·6	35	77·0	25	25·0	2	24·3																		2·40	-0·28	0·80	12	19	0	1	0
Lindsay	44 20	78 45	872	29·93	30·16	29·57	0·59	53·2	-0·6	21	78·0	25	27·5	2	23·1	45.1	77	6	7	4	1	5	12	10	11	4	23	20	93	1	V	25 SW	1·65	+1·49	1·15	15	15	5	5	0
Deseronto	44 11	77 4	261					54·1	-1·2	22	79·0	25	29·0	2	20·3			6	6	7	3	12	0	6	31	31	3	0	93	II	VI	5 SW				13	17	0	1	0
Lakefield	44 25	78 15						52·6	-2·0	22	78·0	26	30·0	1	19·0																		1·39	-1·21	0·55	7	24	0	1	0
Kingston	44 13	76 29	285	29·95	30·18	29·55	0·63	51·1	-2·2	31	67·7	11	28·6	2	16·7			7	9	2	11	4	3	2	23	6	8	3	62		15·8	7 W	2·99	+0·40	0·46	17	10	0	1	0
Clontarf	45 23	77 9						52·4	-1·1	17	79·0	25	28·0	2	23·9																		3·35	+0·79	0·63	10	21	0	0	0
Ottawa	45 26	75 42	294	29·89	30·16	29·49	0·67	51·7	-0·8	22	78·0	25	32·0	1	19·6																IV	7 W	1·66	-0·89	0·39	12	16	0	0	0
Rockliffe	46 9	78 6	557	29·94	30·27	29·53	0·74	50·6	-2·0	28	75·0	11	23·0	2	26·4			6	5	2	2	1	0	1	10	7	3	36	6		IV	1 W	1·15	+1·63	0·73	15	16	0	1	0
*Sarnia	42 59	82 24	586					53·6	-2·3	11	80·0	11	30·0	1	—					10	2	1	7	21	6	4	3	36	93				1·52		0·78	4	27	0	0	0
Stratford	43 23	81 0	1191					52·0	-2·7	39	72·0	25	30·0	1	19·0			6															3·35	-0·55	0·86	7	24	0	0	0
Lucknow	43 56	81 30						51·7	-2·8	18	77·1	25	28·7	21	21·8																		4·69	+1·55	0·95	13	16	0	5	5
White River	48 35	85 16	1252	29·94	30·13	29·85	0·58	44·3	-2·4	16	72·0	31	20·5	2	26·1			5	7	60	74	9	35	52	124	31	176	183	744	4·9	9·0	18 NW	2·16	-0·08	0·80	11	16	0	1	0
Port Arthur	48 27	89 12	644	29·95	30·32	29·55	0·77	45·8	-0·7	25	77·0	31	24·0	1	21·4			6	10	67	172	42	76	12	79	73	176	47	744	5·9	17·4	4 NE	2·14	-0·02	0·74	7	23	0	0	0
Stony Creek	43 13	79 45	282					53·8	-1·1	22	83·0	3	32·0	1	21·4			5	0	9	5	22	6	9	21	8	5	8	93	III	VI	17 S	3·16		1·02	10	21	0	1	0
*Otonabee	44 20	78 18	674					53·6	-2·5	10	76·0	25	32·0	1						0	5	16	5	0	25	10	29	6	91				3·84	+1·10	1·60	9	22	0	0	0
Windsor	42 20	83 4	625					56·9	-1·3	28	82·0	15	31·0	1	19·7																		4·20	+1·23	0·69	14	15	0	0	0
Alton	43 51	80 5	1250																																				
Guelph	43 33	80 16						53·2	-0·3	18	77·0	23	31·0	1	21·4			6	4	1	0	2	5	2	4	27	7	14	62				3·89	+1·78	0·90	11	19	0	2	0
*North Bruce	44 23	81 25						50·5	-1·8	16	74·0	5	33·0	1	—					3	2	12	12	22	19	16	7	0	93				5·37	+2·36	1·83	12	19	0	4	3
Collingwood	44 30	80 15	595					51·0	-2·3	14	79·0	26	30·0	1	19·4																		5·45	+2·79	1·52	12	19	0	2	0
Rocklyn	44 28	80 36	1339																																				
Bala	45 0	79 30	740					51·0	-1·8	22	74·5	25	29·5	2	22·4																		4·53	+1·59	1·50	12	18	0	4	0
Orillia	44 34	79 24	775					52·2	-1·2	11	79·0	26	28·0	2	21·3					0	0	4	13	3	3	9	2	0	31				5·03	+2·32	0·92	15	18	0	0	0
Saugeen	44 30	81 21	656	29·97	30·21	29·59	0·65	50·4	-1·1	29	76·0	14	31·1	2	20·6			6	8	2	0	11	6	9	1	15	2	16	62		18·0	4 E	4·53	+2·09	1·22	15	13	0	5	1
St. Catharines	43 10	79 17																																					

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PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING MAY, 1905.

STATION	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Sooke Lake	5·40	11	20	1·63	23					
Goldstream Lake	5·09	18	13	1·59	23					
Somas River	2·01	7	24	0·71	13					11, hail storm, thunder on
Royal Oak	3·86	11	17	1·01	23					26, 27, 28, 29, 30, 31.
Nanaimo	1·46	5	26	0·70	23					
Naas Harbour	4·30	8	23	1·23	17					
Coquitlam	3·96	6	25	1·35	20					
N. W. TERRITORIES—										
Duck Lake	0·63	5	26	0·37	12					
Kimball	3·71	7	24	1·11	21					
Lacombe	1·54	4	27	1·30	24					
Coutts	0·70	5	26	0·40	10					
Stirling	1·26	9	22	0·45	3					29, 30, 31, extremely hot.
Hanley	1·48	10	21	0·79	24					Trees in leaf.
Saltcoats	0·85	5	26	0·64	23					
Herbert	3·06	11	20	1·21	24					Sleet on 11, 21, first lightning.
Bruederheim	1·13	5	26	0·59	23					Month ends very warm.
Dirt Hills	1·70	5	24	0·90	22	12·0	2	12·0	9-10	
Beaver Hills, W	1·19	5	23	0·68	23					
Regina	3·78	11	19	1·72	23	included	in	rain.		10-11, snow.
Innisfail	1·97	6	25	0·83	24	included	in	rain.		11, snow.
Last Mountain	2·63	13	16	1·42	24	included	in	rain.		10, snow.
MANITOBA										
Belmont	1·17	9	21	0·32	6	*	2			Thunderstorm, 23.
Deloraine	1·58	7	20	0·45	23	6·5	3	1·0	9	Thunder, 16.
Cartwright	2·42	8	21	0·77	9-10	included	in	rain.		4, blizzard.
Rapid City	1·41	5	10	1·27	23	7·0	5	6·0	9	Blizzard 4, 10, thunder 7, 15, 20, 23, 30, Aurora 1, 28.
Gretna	2·37	6	8	0·79	10	4·0	2	4·0	4	Snow melting on 10.
Norquay	1·24	7	19	0·24	23	9·0	6	5·0	4	
Beaver	3·60	7	21	*1·63	6-7		1		7	*Part snow.
Rosebank	1·54	5	24	0·60	12	11·0	2	6·0	4	
ONTARIO—										
Montague	1·49	7	24	0·39	4					Thunder 17.
Westminster	2·58	10	19	0·48	6					Thunder, 4, 8.
Wyoming	3·10	13	18	0·40	26					Thunder, 2, 3, 7, 11, 14, 16.
Scarboro	3·34	13	17	0·88	29	*	1	*	2	Thunder, 3, 8, 17, fog 15, 16, 17, 18
Wooler	2·48	11	19	0·57	3	*	1		1	Thunder, 3.
Jermyn	2·83	9	22	0·60	8					Thunder, 3.
Watford	3·51	13	18	0·53	25					
MacCue	1·80	8	23	0·50	16					
Emsdale	4·59	13	18	0·83	26	*	2	*	1	Thunder, 5, 15, 16, 17, 18, 25, 29.
Lansdowne	2·24	8	23	0·65	17					Thunder, 15.
Orangeville	4·15	9	21	0·98	30	0·5	1	0·5	2	
Midland	5·99	12	19	1·90	25					Thunder, 2, 3, 4, 17, 25.
Aurora	4·53	11	20	1·31	3					Thunder, 3.
Lion's Head	4·31	13	18	0·78	26					Thunder, 3, 4, 14, 15, 16, 17.
Wiarton	4·99	10	21	1·09	25					Thunder, 3, 4, 14, 17, 25.
Ursa	4·33	7	24	1·43	26					Thunder, 2, 3, 8, 17.
Sydenham	2·84	7	24	0·65	6					
Croydon	1·95	7	24	0·40	1					
Georgetown	2·97	14	14	1·02	29	*	1	*	2	Aurora, 1, 27, 30, Thunder 3, 5, 8, 17.
Arden	3·00	16	15	0·66	7					
Smiths Falls	1·70	10	21	0·27	15					
Princeton	3·68	12	19	0·95	25					Thunder, 3, 5, 17.
N. Williamsburg	2·55	6	25	0·83	17					
Ennismore	2·85	6	25	0·82	3					
Deer Park	2·67	7	24	0·92	29					Thunder 4.
Dutton	2·94	10	21	0·70	25					
Parma	2·21	8	23	0·52	7					
Westport	2·58	13	18	0·48	18					Thunder, 3, 4, 16, 18, 27, 30.
Goderich	3·60	10	21	1·00	6					
Fitzroy Harbour	2·20	10	20	0·68	18	*	1	*	1	
Gower Point	5·11	11	20	1·80	26					Thunder, 15.
Arnprior	2·94	12	18	0·42	3					
White Fish Pond	3·49	12	19	1·06	15					
Turtle Dam	3·46	12	19	1·04	15					
Menard's Bridge	3·46	12	19	1·06	15					
Nashbnsing Lake	3·48	12	19	0·90	15					
Pinisi Bay	3·21	10	20	0·78	26					
Lake Talon	2·62	8	23	0·70	26					
QUEBEC—										
Bryson	2·65	7	23	0·50	17					
NEW BRUNSWICK—										
Point Escuminac	2·01	7	19	0·54	8					
NOVA SCOTIA—										
Port Morien	1·00	5	26	0·32	11					

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF MAY, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	0·16	0·43	0·52	0·55	0·53	0·50	0·53	0·58	0·60	0·61	0·46	0·35	0·36	0·11	.....
Nanaimo	0·04	0·32	0·51	0·50	0·56	0·49	0·52	0·54	0·49	0·45	0·52	0·47	0·48	0·46	0·39	0·02
Agassiz	.....	.....	0·17	0·35	0·45	0·47	0·47	0·48	0·49	0·39	0·47	0·41	0·35	0·19	0·04	....
Battleford	0·12	0·53	0·57	0·62	0·58	0·58	0·60	0·54	0·55	0·57	0·46	0·53	0·46	0·39	0·20	.....
Indian Head	.....	0·14	0·38	0·48	0·58	0·54	0·54	0·55	0·54	0·53	0·56	0·51	0·48	0·44	0·19	.....
Brandon	.....	0·04	0·43	0·49	0·51	0·50	0·56	0·60	0·51	0·56	0·57	0·55	0·52	0·51	0·43	.....
Winnipeg	0·06	0·53	0·60	0·57	0·53	0·60	0·55	0·60	0·60	0·65	0·58	0·51	0·49	0·45	0·31	0·08
Woodstock	.....	0·01	0·20	0·40	0·45	0·55	0·58	0·60	0·61	0·63	0·67	0·64	0·56	0·40	0·23	S
Toronto	.....	0·09	0·35	0·49	0·51	0·51	0·58	0·63	0·63	0·63	0·60	0·52	0·55	0·53	0·40	0·02
Lindsay	S	0·11	0·12	0·25	0·45	0·49	0·50	0·48	0·57	0·62	0·57	0·57	0·47	0·39	0·32	0·13
Gravenhurst	.....	0·18	0·49	0·51	0·49	0·48	0·52	0·56	0·58	0·62	0·60	0·59	0·62	0·53	0·49	0·18
Kingston	S	0·24	0·44	0·48	0·55	0·57	0·53	0·57	0·57	0·58	0·57	0·53	0·36	0·29	0·22	0·01
Ottawa	.....	0·19	0·50	0·48	0·55	0·63	0·62	0·57	0·56	0·50	0·58	0·62	0·55	0·47	0·25	S
Montreal	.....	0·21	0·42	0·49	0·49	0·63	0·63	0·65	0·57	0·56	0·55	0·56	0·47	0·33	0·04	.....
Quebec	.....	0·24	0·39	0·49	0·57	0·60	0·54	0·55	0·55	0·53	0·50	0·46	0·41	0·40	0·26	0·03
Fredericton	.....	0·33	0·45	0·47	0·59	0·60	0·61	0·60	0·60	0·66	0·63	·62	0·59	0·50	0·34	0·02

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·41	0·44	0·31	0·47	0·42	0·44	0·48	0·45	0·48	0·41	0·50	0·44	0·48	0·51	0·43	0·51
Difference from average	0·00		+0·01	−0·01	−0·04	−0·04	−0·05	+0·03	0·00	−0·06	—	−0·03	−0·01	0·00	—	+0·07
Maximum daily amount	0·82	0·91	0·75	0·92	0·85	0·85	0·94	0·91	0·89	0·90	0·90	0·93	0·91	0·99	0·95	0·93
Date	17·25	9	1	16	18	18	31	20	23	31	23	31	23	10	31	12
No. of days completely clouded	5	3	8	4	6	3	6	6	0	5	2	6	2	4	5	5

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Georgetown, IV ; Rapid City, Edmonton, IV.
2. Chaplin, III.
4. Halifax, IV.
6. Winnipeg, IV.
7. St. Peters.
12. Nelson, IV.
18. Winnipeg, III.
19. Winnipeg, III.
24. Hillview, IV.
27. Hillsdown, IV ; Aweme, IV ; Kenora, IV ; Georgetown, IV ; Winnipeg, II.
28. Grenfell, IV ; Rapid City, Savanne, Montreal, IV.
29. Hillsdown, IV ; Savanne, Winnipeg, II ; Edmonton, IV.
30. Georgetown, IV ; Savanne.
31. Hillsdown, III.

Thunder recorded on :

1. Moncton, Beatrice, Halifax.
2. Wyoming, Ursa, Beatrice, Cockburn Island, Point Clark, Gravenhurst, Bruce Mines.
3. Wyoming, Scarboro, Wooler, Jermyn, Aurora, Wiarton, Ursa, Georgetown, Smiths Falls, Princeton, Wesport, Lucknow, Clinton, Bala, Collingwood, Port Hope, Peterboro, Agincourt, Abitibi, Cockburn Island, Brantford, Owen Sound, Point Clark, Meaford, Uplands, Madoc, Uxbridge, Woodstock, Toronto, Lindsay, Gravenhurst, Deseronto, Saugeen, Vancouver, Kingston, Bruce Mines.
4. Westminster, Midland, Wiarton, Croydon, Arden, Deer Park, Westport, Beatrice, Sutton, Paris, Cockburn Island, Birnam, Owen Sound, Point Clark, Uxbridge, N. Bruce.
5. Scarboro, Emsdale, Georgetown, Arden, Princeton, Beatrice, N. Gower, Bala, Sutton, Collingwood, Agincourt, Hamilton, Savanne, Brantford, Meaford, Clontarf, Woodstock, Toronto, Lindsay, Gravenhurst, Guelph, Saugeen, Port Stanley, Parry Sound.
6. Chicoutimi, Sutton, Port Hope, Port Dover, Port Burwell, Quebec, Qu'Appelle.
7. Rapid City, Wyoming, Quebec, Qu'Appelle, Fredericton, London, Port Stanley, Grand Manan.
8. Scarboro, Ursa, Georgetown, Princeton, Calvin, Port Dover, Brantford, Toronto, Lindsay, St. John, Grand Manan.
9. Sutton, Sable Island.
11. Wyoming, Lakefield, Port Stanley.
12. Lindsay.
13. Sutton, Point Clark.
14. Wyoming, Wiarton, Smith's Falls, Beatrice, Cockburn Island, Macleod, Barnardo. Bruce Mines.
15. Emsdale, Lansdowne, Meaford, Uplands, Stony Mountain, Winnipeg, Minnedosa, Montreal, Rockliffe.
16. Deloraine, Wyoming, Emsdale, Wiarton, Wesport, Beatrice, Lucknow, Cockburn Island, Birnam, Point Clark, Meaford, Uplands, N. Bruce, Saugeen, Minnedosa, Grand Manan.
17. Scarboro, Emsdale, Midland, Wiarton, Ursa, Georgetown, Smith's Falls, Princeton, Lucknow, Bala, Paris, Port Dover, Agincourt, Owen Sound, Point Clark, Meaford, Uplands, Port Burwell, N. Bruce, Renfrew, Lindsay, Gravenhurst, Saugeen, Montreal, Port Stanley, Parry Sound.
18. Montague, Emsdale, Westport, Moncton, N. Gower, Sutton, Calvin, Uplands, Madoc, Guelph, St. John, Grand Manan, Charlottetown.
20. Last Mountain, Macleod.
21. Herbert, Summerside, Macleod, Medicine Hat, Banff.
23. Belmont, Rapid City, Minnedosa.

25. Midland, Wiarton, Lucknow, Bala, Agincourt, Owen Sound, Point Clark, Meaford, N. Bruce, Toronto, Saugeen, Parry Sound.

26. Somas River, Gravenhurst.

27. Somas River, Westport.

28. Somas River, Summerside, Vancouver, Pictou, Halifax, Charlottetown.

29. Somas River, Emsdale.

30. Somas River, Rapid City.

31. Somas River, Chilliwack.

FORECASTS FOR MAY, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1081. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	92	74	10	8	85·9
Lake Superior	110	78	25	7	82·3
Lower Lake Region	14	85	17	12	82·0
Georgian Bay	114	83	19	12	81·1
Ottawa Valley	97	75	10	12	82·5
Upper St. Lawrence	96	76	10	10	84·4
Lower St. Lawrence	109	84	17	8	84·9
Gulf	113	89	17	7	86·3
Maritime Provinces, West	118	92	18	8	85·6
Maritime Provinces, East	118	88	20	10	83·1
Total	1081	824	163	94	83·8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
28th June, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. JUNE, 1905. No. 6.

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

In British Columbia the weather during June did not, as a rule, depart from the normal; there was, however, a marked deficiency in the amount of precipitation along the northern portion of the Coast Line. Light frosts were recorded at a few points, generally on or about the 14th and 23rd. Vegetation was about normal on the 30th.

The weather in the North-West Territories was for the most part cloudy with precipitation generally much in excess of the average amount. Light frosts were experienced in many districts on or about the 10th and 24th, the damage therefrom being confined to the more tender vegetables. Growth of all kinds of grain and vegetables was excellent, and on the 30th the general crop outlook could scarcely have been better.

In Manitoba, as in the Territories, cloudy weather with a somewhat excessive rainfall prevailed. Some light frosts occurred on or about the 10th and 24th, but no damage ensued, and on the 30th grain and other crops were further advanced and of better quality than usual.

In Ontario an excess of precipitation was fairly general, though in Muskoka and near the eastern shores of the Georgian Bay there was a marked deficiency. Bright sunshine was deficient, but nevertheless there were many bright days, and maximum temperatures at many places exceeded 90°, being recorded generally between the 17th and 19th. Light local frosts occurred during the first part of the month, and some garden produce was injured in Northern Counties. In the Central and Eastern Counties the general report on vegetation was most satisfactory.

In Quebec the month was more nearly normal than elsewhere except in British Columbia, both fair days and days of rain being about average. There were many fairly warm days, but there were no great bursts of heat and the nights were cool. A frost was pretty general about the 8th, but apparently did not do much damage.

The month was cool and backward in Nova Scotia with a somewhat excessive rainfall. A heavy frost occurred in the Annapolis Valley on the 7th, and considerable damage was done to vegetables and fruit.

Similar conditions prevailed in Prince Edward Island, the month being cold and wet. Local frosts occurred on or about the 18th and 28th. On the 30th the crops were all looking well and vegetation was well advanced.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure for June exceeded the average amount over the greater portion of Canada. A slight subnormal value occurred east of the Georgian Bay to and including the greater part of New Brunswick and Nova Scotia. The range of departure from the normal was 0·16 of an inch, the extremes being +0·13 of an inch at Banff, N.W.T., and —0·03 of an inch at Grand Manan and St. John, N.B.

HIGH AREAS.

Seven areas of high barometric pressure were charted in June, most of them having a nearly common place of origin over the far Northwest or Pacific Coast, and traversing a path which stretched southeastward over or west of the Lake Region to the Atlantic. Two areas passed far to the north of Ontario and then southeastward and over the Maritime Provinces. Some systems were fairly energetic but many were of slight intensity.

LOW AREAS.

During June nine systems of low barometric pressure were sufficiently well marked to be traced. The courses assumed were well scattered over the Continent, but a tendency for the centres to cross the Lake Region was exhibited by most systems.

One area was traced from the Florida Coast to the Lake Region, where it combined with another system, but the majority were first observed over the western portion of the Continent. No general gales were recorded, but some heavy local winds accompanied some areas.

Most of the systems exhibited their greatest energy while over Quebec and the Maritime Provinces, but some few reached their maximum intensity while west of the Lake Region.

WINDS.

In British Columbia, on Vancouver Island and over the Lower Mainland the southwest direction predominated with strong breezes on two days and fresh on thirteen. In the Cariboo District the west and north directions were in the ascendency with four days of fresh breezes.

The direction most in evidence in the North-West Territories was northwest and west with seventeen days of fresh breezes, two of strong and one local moderate gale.

The north and west direction predominated in Manitoba with seventeen days of fresh breezes, five strong, and two moderate gales.

In the Upper Lake Region the northeast direction was most in evidence with three days of fresh breezes.

The direction was variable with fourteen days of fresh breezes on the Georgian Bay and Lake Huron.

On Lakes Ontario and Erie the northwesterly direction prevailed with eleven days of fresh and and one of strong breezes.

In the Ottawa and Upper St. Lawrence Valleys the westerly direction prevailed with eight days of fresh breezes.

The direction was largely variable in the Lower St. Lawrence and Gulf with twenty-two days of fresh winds and three of strong. There were two gales in the Gulf. The gale on the 28th was severely felt in many localities.

In the Maritime Provinces on the Bay of Fundy, the southerly direction prevailed with fresh winds on eighteen occasions and strong on four. In other districts the southwesterly direction was in the ascendency with fresh breezes on eight days.

No warnings were issued.

BRIGHT SUNSHINE.

The mean proportion of bright sunshine for June was subnormal throughout Canada except in British Columbia where the normal value was exceeded slightly. The departures from average ranged from + 5% at Victoria, B. C., to — 14% at Battleford, N. W. T., and Lindsay, Ont.

TEMPERATURE.

The mean temperature of June was lower than average in nearly all parts of the Dominion, portions of British Columbia and some few districts in Ontario alone showing an average or an excess the average mean record. The largest negative departures, amounting to between 4° and 5°, occurred in Nova Scotia and Prince Edward Island, and departures ranging between 3° and 5 ° were registered in Manitoba and over a large portion of the Territories.

The highest and Lowest temperatures in each Province during June, 1905, were :

British Columbia,	91° ·0 on 9th at Spence's Bridge,	26° ·0 on 23rd at Barkerville.
N. W. Territories,	96° ·0 on 21st at Onion Lake.	21° ·0 on 13th at White Horse.
Manitoba,	91° ·0 on 3rd at Aweme,	30° ·0 on 10th at Minnedosa.
Ontario,	99° ·0 on 17th at Cottam,	28° ·0 on 2nd at Savanne.
Quebec,	90° ·0 on 16th at Quebec,	28° ·0 on 6th at Abitibi.
New Brunswick,	92° ·0 on 16th at Chatham,	27° ·5 on 6th at Moncton.
Nova Scotia,	84° ·8 on 17th at Halifax,	26° ·6 on 7th at Parrsboro'.
Prince Edward Island,	93° ·0 on 16th at Hamilton,	33° ·0 on 7th at Charlottetown.

PRECIPITATION.

The rainfall did not differ much from the average in British Columbia, except along the northern coast line where a deficiency of from 2 to 4 inches occurred, but to the eastward of the Rockies, in the North-West Territories and Manitoba, there was a considerable excess in most districts and this was especially the case in Southern Alberta where Calgary recorded 5·8 inches which is nearly equal to twice the average fall. In Northern Saskatchewan there was a small deficiency. In Ontario an excess was fairly general, but in Muskoka and near the north and east shores of the Georgian Bay there was a marked deficiency. In Quebec and Northern and Western New Brunswick the fall was average or a little below, while over the larger portion of the Maritime Provinces there was a small excess.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
BRITISH COLUMBIA—	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°																									
Victoria	48 24	123 19	85	29·99	30·19	29·77	0·42	56·7	+ 0·1	14	68·7	17	47·3	14	12·3	.....	.....	6	5	2	11	16	22	101	372	93	8	65	720	8·5	20·0	3 SW	1·06	−0·62	0·43	8	21	0	1	0
Barkerville	53 2	121 35	4180	29·96	30·16	29·70	0·46	49·9	− 0·6	17	74·0	9	26·0	23	24·9	.....	.....	7	8	2	0	0	1	1	0	1	1	56	60	.....	.....	.....	4·14	+0·66	0·60	16	14	0	0	0
Agassiz	49 14	121 31	52	.....	.....	.....	.....	58·6	+ 1·5	16	81·0	22	40·0	20	32·2	.....	.....	4	0	15	0	0	0	45	0	30	0	0	90	.....	.....	.....	3·20	+1·13	0·64	11	19	0	0	0
Port Simpson	54 34	130 26	26	30·01	30·29	29·76	0·53	56·3	+ 3·5	17	77·0	22	39·3	14	16·5	.....	.....	6	6	10	3	8	0	0	8	14	9	12	60	.....	11·0	5 SW	1·20	−3·17	0·32	9	19	0	0	0
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	58·0	—	6	78·0	1	35·0	15	24·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·54	—	0·73	12	16	0	0	0
Kamloops	50 41	120 29	1193	29·85	30·10	29·62	0·48	65·5	+ 1·9	12	81·8	10	44·1	15	22·5	.....	.....	6	5	16	0	12	33	56	8	61	28	506	720	1·5	.....	.....	0·82	−0·62	0·32	7	20	0	1	0
Princeton	49 29	120 29	1650	.....	.....	.....	.....	58·4	.....	9	83·0	10	34·0	14	30·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·12	—	0·19	13	17	0	8	0
Pilot Bay	49 39	116 55	2000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rivers Inlet	51 39	127 19	20	30·01	30·25	29·74	0·51	56·5	+ 2·2	1	82·9	22	41·7	15	17·9	40·9	85	5	4	0	0	5	0	0	0	53	0	32	90	11	IV	21 W	0·29	−4·37	0·19	4	24	0	0	10
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	54·2	+ 3·6	12	82·0	2	23·7	14	33·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·57	−0·78	0·50	2	28	0	2	0
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	61·2	+ 1·3	11	84·0	10	36·0	15	25·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·61	+1·25	0·75	12	18	0	0	0
*a*Nanaimo	49 10	123 57	.....	29·87	30·08	29·64	0·44	60·9	—	5	81·0	17	41·3	15	18·6	53·9	74	4	1	10	7	6	11	0	1	1	35	19	90	9·1	27·7	16 NW	2·06	—	0·82	9	20	0	2	0
Chilliwack	49 10	121 57	21	29·98	30·20	29·76	0·44	61·1	.....		80·1	20	44·0	15	19·4	56·9	82	6	5	0	0	8	12	33	29	5	0	0	87	.....	.....	.....	2·96	−0·41	0·66	11	19	0	0	0
Port Bobs	50 32	128 3	.....	.....	.....	.....	.....	54·3	—	9	67·0	9	44·0	14	12·0	.....	.....	.....	.....	0	0	2	5	0	3	4	16	0	30	.....	.....	.....	0·51	—	0·38	3	27	0	1	0
Midway	49 0	118 46	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	58·1	+ 1·1	10	78·0	11	39·0	15	21·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·99	−0·42	0·26	9	21	0	0	0
West Kootenay	49 20	117 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Garry Point	49 21	123 17	.....	.....	.....	.....	.....	57·7	+ 1·0	10	73·5	30	41·0	15	16·8	.....	.....	.....	.....	4	6	4	15	18	3	11	14	15	90	5·8	9·3	19 S	1·84	−0·28	0·70	5	25	0	0	0
Tobacco Plains	49 1	115 5	2684	.....	.....	.....	.....	59·4	+ 1·0	10	86·1	11	38·0	24	28·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·45	+0·01	0·46	12	14	0	1	0
*a*Vancouver	49 17	123 5	.....	29·85	30·06	29·64	0·42	59·4	—	1	76·5	8	42·5	15	20·7	54·5	75	5	3	0	2	4	9	1	6	7	7	22	60	11	VI	1 SW	2·53	—	0·79	9	19	0	2	0
New Westminster	49 13	122 54	330	29·98	30·18	29·75	0·43	59·5	0·0	12	75·2	17	41·8	14	19·2	.....	.....	5	5	1	1	2	3	2	24	2	0	16	60	.....	.....	.....	3·16	+0·54	1·09	9	10	0	1	0
Ladner	49 5	123 4	.....	.....	.....	.....	.....	59·2	—	7	76·0	9	41·0	1	23·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·64	—	0·78	4	26	0	0	0
North Nicomen	49 12	122 2	59	.....	.....	.....	.....	61·0	+ 1·8	13	78·0	20	42·0	14	20·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·78	−2·33	0·57	12	18	0	5	0
Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	60·8	+ 3·4	11	89·0	1	31·0	15	21·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·31	−1·28	0·15	4	26	0	4	0
Clayoquot	49 11	125 47	40	.....	.....	.....	.....	51·9	—	7	69·5	17	40·5	17	13·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·61	—	0·35	2	28	0	0	5
Cranbrook	49 30	115 50	2900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massett	53 58	132 9	30	.....	.....	.....	.....	59·2	—	7	80·0	26	43·0	5	16·5	.....	.....	.....	.....	3	3	0	5	0	0	18	1	0	60	.....	.....	.....	0·00	—	0·00	0	30	0	0	0
Bullion	52 45	121 55	2775	.....	.....	.....	.....	55·5	—	9	83·0	9	28·0	14	27·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·17	−1 73	0·19	10	20	0	2	0
Bella Coola	52 40	126 54	150	.....	.....	.....	.....	63·0	—	7	91·0	23	38·0	15	28·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·59	—	0·55	3	27	0	0	0
Cowichan	48 25	123 42	170	.....	.....	.....	.....	58·0	—	2	76·9	17	41·5	14	21·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·06	—	0·73	7	22	0	1	0
Nelson	49 29	117 21	1760	.....	.....	.....	.....	61·2	—	4	86·0	1	34·0	14	31·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4·55	—	0·92	17	13	0	5	0
Matsqui	49 7	122 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Okanagan Mission	49 52	119 29	1200	.....	.....	.....	.....	62·3	—	6	83·6	10	41·9	20	25·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·62	—	0·36	12	16	0	0	0
Alberni	49 15	124 49	.....	.....	.....	.....	.....	62·6	+ 2·6	11	87·2	8	41·0	15	29·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·38	−0·16	0·71	7	23	0	0	0
Kuper Island	48 54	123 38	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Scott	50 48	128 27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glacier	51 14	117 29	4072	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golden	51 16	116 55	2550	.....	.....	.....	.....	56·6	—	4	84·0	2	34·0	9	26·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	25	0	1	0
Spence's Bridge	50 25	121 30	760	.....	.....	.....	.....	67·4	+ 1·8	12	91·0	9	46·0	15	27·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·61	−0·13	0·48	2	23	0	0	0
Bamfield	48 50	125 9	.....	30·02	30·15	29·80	0·35	58·5	—	3	71·7	28	42·9	5	20·3	.....	.....	3	3	0	0	0	0	0	3	0	34	6	47	90	.....	.....	.....	0·15	—	0·09	5	25	0	1	7
Big Creek	51 40	123 0	.....	.....	.....	.....	.....	54·2	—	1	82·0	9	28·0	23	27·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·35	—	0·21	14	12	0	5	0
Nickel Plate	49 30	120 0	5400	.....	.....	.....	.....	48·2	—	1	68·0	9	32·0	14	19·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·51	—	0·45	15	15	0	0	0
Thetis Island	49 0	123 40	.....	.....	.....	.....	.....	58·6	—	1	74·9	17	42·0	19	18·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·98	—	0·85	9	21	0	1	6
Hedley											82·0	10	—	—	—																	0·81	—	0·23	16	14	0	0	0
Kitamaat	53 59	128 42	.....	.....	.....	.....	.....	58·8	—	1	83·0	22	37·0	13	21·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·63	—	0·32	6	24	0	0	0
Rossland	49 5	117 48	3400	.....	.....	.....	.....	55·4	—	2	79·6	1	36·0	15	20·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·71	—	0·76	16	14	0	1	0
*Port Essington	54 9	129 55	10	.....	.....	.....	.....	55·5	—	1	90·0	24	47·0	12	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·63	—	0·19	6	24	0	0	0
. W. TERRITORIES—																																								
Medicine Hat	50 1	110 37	2161	29·87	30·20	29·60	0·60	59·2	— 2·4	21	90·0	1	31·7	23	25·5	.....	.....	6	3	0	0	6	3	6	0	19	9	17	60	.....	15·0	12 W	3·93	+1·26	1·35	12	16	0	6	0
Edmonton	53 33	113 30	2158	29·87	30·20	29·62	0·58	56·4	— 0·6	22	86·0	1	29·0	24	24·9	.....	.....	6	4	3	5	4	5	5	7	5	16	10	60	.....	17·3	26 NW	4·36	+1·36	1·02	17	13	0	4	0
Swift Current	50 20	107 45	2439	29·89	30·21	29·54	0·67	57·7	— 2·2	19	87·0	3	32·0	23	23·6	.....	.....	5	4	4	6	6	6	6	7	11	7	7	60	.....	22·0	22 N	3·62	+0·82	1·52	15	14	0	9	0
Qu'Appelle	50 30	103 47	2115	29·87	30·12	29·40	0·72	56·4	— 3·1	22	84·5	3	34·4	24	21·3	.....	.....	7	8	5	5	8	7	9	6	3	11	6	60	.....	13·6	29 W	5·16	+1·72	1·36	16	12	0	3	1
Calgary	51 2	114 2	3389	29·90	30·22	29·62	0·60	52·9	— 2·4	21	85·0	1	32·0	27	24·8	.....	.....	6	6	3	5	0	8	0	3	10	24	7	60	.....	22·0	15 NW	5·81	+2·85	2·14	14	15	0	0	0
Prince Albert	53 10	106 0	1432	29·83	30·16	29·41	0·75	58·1	+ 0·6	20	87·8	17	33·0	14	22·8	.....	.....	6	7	1	2	6	7	5	4	2	7	26	60	.....	14·0	19 NW	2·83	+0·24	0·60	16	14	0	4	0
Battleford	52 41	108 20	1620	29·92	30·24	29·62	0.62	56·2	— 2·6	14	88·0	2	32·0	23	22·3	.....	.....	6	4	131	41	106	29	70	31	115	58	436	720	5·9	23·0	26 NE	3·13	−0·17	0·65	18	10	0	1	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. JUNE, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with ·01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°																							
ONTARIO—*Con.*																																								
Brantford	43 10	80 21	750					64·8	− 0·8	20	89·0	18	40·0	2	21·9																		1·61	+2·41	1·27	9	21	0	5	1
Parry Sound	45 19	80 0	635	29·95	30·24	29·63	·61	62·9	+ 1·6	29	85·0	18	36·0	3	21·2			6	4	89	80	71	19	26	148	196	45	16	720	6·0	10·8	7 NE	1·57	0·99	0·33	12	17	0	2	0
Owen Sound	44 34	80 55	597					61·7	+ 0·7	26	87·0	15	37·	8	24·1					21	2	1	5	26	4	10	21	0	90				2·43	0·42	0·67	8	22	0	3	5
Beatrice	45 8	79 20	806					60·4	− 0·1	28	83·0	15	33·0	3	24·2			6	7	4	3	0	5	3	8	2	10	55	90	1	III	26 NW	2·17	1·15	0·66	12	18	0	2	1
Coldwater	44 38	79 40	600					61·4	− 2·5	19	88·0	17	31·0	3	24·5																		0·79	2·07	0·45	4	26	0	0	0
Gravenhurst	44 54	79 20	770					62·0	− 1·1	34	87·0	16	34·0	1	25·4			5	2	13	2	13	9	10	6	16	12	15	90				2·39	− 1·05	1·12	12	17	0	3	1
Haliburton	45 1	78 28						61·0	− 1·2	18	88·0	15	31·0	1	25·7																		3·85	+0·38	0·97	12	15	0	1	0
*Point Clark	44 5	81 44	595					60·6	+ 0·2	32	95·0	17	37·0	5				3	0	30	2	7	1	41	1	2	6	0	90	III	VII	22 NW	2·75	0·47	0·80	7	23	0	5	4
Birnam	43 2	81 55	600					61·0	− 3·6	22	84·1	19	36·2	3	16·1					16	0	1	0	13	2	9	10	9	60				3·20	−0·20	1·71	8	21	0	5	4
London	42 59	81 13	808	29·94	30·26	29·53	0·73	63·6	− 2·3	22	85·0	15	37·0	3	21·6	59·1	79	5	2	0	0	1	8	2	37	17	25	0	90	1	II	6 SE	3·07	−0·35	0·92	12	16	0	5	0
Port Stanley	42 40	81 13	592	29·97	30·27	29·65	0·62	62·8	− 0·8	31	81·8	19	40·7	9	18·5			5	4	6	5	9	8	2	7	8	12	3	60		12·0	26 NW	3·25	+0·18	0·87	11	29	0	6	6
Woodstock	43 8	80 47	980																	43	17	79	48	47	117	107	154	108	720	6·9										
Port Dover	42 47	80 13	635					62·7	− 1·3	30	85·3	19	43·5	3	17·1																		2·29	0·25	0·56	11	19	0	4	0
Pelee Island	41 50	82 38	585					67·1	− 0·9	25	79·0	18	55·0	8	8·1																		5·51	+2·11	1·35	7	23	0	0	0
Paris	43 12	80 25	840					61·2	0·8	16	87·0	17	33·0	3	34·1																		1·54	+1·32	2·09	12	18	0	7	0
Bancroft	45 1	77 50						60·2	− 1·9	14	84·5	19	31·0	1	22·9																		3·78	+0·69	0·93	12	18	0	0	0
Calvin	46 15	78 48						62·0	+ 1·0	10	87·2	18	33·8	8	26·9																		5·01	+1·44	0·89	11	19	1	1	1
Agincourt	43 47	79 16						62·3	− 0·2	10	84·0	18	40·5	2	20·6																		2·86	−1·11	0·62	9	21	0	6	2
Hamilton	43 16	79 54	103					65·2	0·5	30	90·0	18	44·0	31	17·9																		3·27	+0·60	1·56	5	25	0	2	0
Port Hope	43 56	78 20						60·7	− 2·4	10	82·0	22	40·0	8	19·4																		1·96	+2·53	1·10	12	18	0	2	0
Kinmount	44 45	78 38						60·8	—	8	84·5	18	31·0	1	23·1																		1·77	—	1·15	11	19	0	2	4
Cockburn Island	45 57	83 18	610					59·5	—	7	80·0	17	37·0	3	21·7					8	4	3	9	9	10	1	10	6	60				3·08	—	1·41	9	21	0	2	8
Chatham	42 23	82 12	595					66·5	+ 0·2	16	94·0	19	40·0	3	22·1																		2·66	+0·10	0·97	7	23	0	0	0
Meaford	44 37	80 37						60·1	—	7	81·0	20	42·0	6	15·7					7	21	5	2	7	15	2	1	0	60				3·23	—	0·86	8	22	0	3	4
Listowel	43 44	80 58																																						
Bruce Mines	46 18	83 55	595					59·0	—	7	80·0	18	38·0	7	23·9																		3·07	—	1·02	5	25	0	2	0
Rat Portage (Kenora)	49 48	94 32	1102					57·3	—	6	78·0	30	38·2	10	19·5																		5·55	—	0·93	12	18	0	5	1
Sturgeon Falls	46 16	79 54																																						
Uplands	45 48	79 25						60·0	− 0·5	19	88·0	21	29·0	1	27·6																		3·81	+0·33	1·66	11	19	0	3	0
Toronto	43 40	79 24	350	29·95	30·24	29·61	0·63	63·1	+ 0·6	64	85·2	20	39·9	1	19·7	55·5	76	6	5	77	53	83	8	163	43	50	159	84	720	6·9	15·9	26 NW	3·19	+0·39	0·55	14	16	0	7	6
Welland	42 59	79 17	425					61·6	− 0·8	19	89·0	18	41·0	8	21·7																		3·68	+1·39	1·17	10	29	0	0	0
Peterborough	44 17	78 19	722					63·1	− 2·4	35	87·0	15	35·0	1	24·0																		2·81	+0·21	0·79	10	29	0	1	0
Lindsay	44 20	78 45	872	29·92	30·15	29·58	0·57	63·6	0·0	23	86·7	15	39·0	1	20·6			7	10	1	2	2	7	3	8	4	19	41	90				3·72	+0·54	1·21	12	17	0	2	2
Deseronto	44 11	77 4	264					61·4	− 1·3	22	83·0	20	42·0	1	19·4			5	7	7	6	8	0	1	15	21	4	28	90	II	IV	2 SW		—		10	29	0	1	0
Lakefield	44 25	78 15						61·5	0·0	21	84·5	16	40·0	1	19·1																		2·78	+0·01	0·68	9	21	0	1	0
Kingston	44 13	76 29	285	29·92	30·18	29·46	0·72	60·0	− 3·0	31	80·0	15	41·2	1	14·5			6	7	2	8	1	1	1	30	2	6	6	60		11·0	2 NW	5·61	+2·90	1·60	14	16	0	1	0
Clontarf	45 23	77 9						62·9	+ 0·1	17	86·0	15	38·7	7	22·9																		4·27	+0·60	1·40	15	13	1	2	0
Ottawa	45 26	75 42	294	29·88	30·12	29·56	0·56	65·2	+ 0·2	22	87·0	20	42·0	8	18·6			7	5	5	3	6	7	8	9	11	8	3	60				4·23	+1·13	2·09	10	15	0	2	0
Rockliffe	46 9	78 6	557	29·93	30·21	29·67	0·54	63·2	+ 1·8	28	89·0	15	35·0	1	25·0			7	9	1	1	0	0	1	4	6	4	43	60				3·90	+0·76	0·90	12	16	0	1	2
*Sarnia	42 59	82 24	586					63·4	0·7	11	89·0	15	42·0	2						19	1	0	2	9	6	4	5	41	90				2·73	+0·06	2·08	2	28	0	0	0
Stratford	43 23	81 0	1191					60·0	− 2·5	39	83·0	17	38·0	3	18·3																		2·96	0·18	0·87	7	23	0	0	0
Lucknow	43 56	81 30						60·8	− 2·3	19	84·1	17	31·6	3	21·7																		2·61	+0·02	0·60	10	19	0	5	1
White River	48 35	85 16	1252	29·95	30·32	29·73	0·59	55·4	− 1·8	16	80·0	15	28·0	7	29·6			5	2	56	111	25	51	71	110	56	117	123	720	4·8			0·85	− 1·42	0·25	12	13	0	0	0
Port Arthur	48 27	89 12	644	29·97	30·35	29·70	0·65	54·6	− 1·5	25	77·0	7	35·0	7	19·6			5	4	84	177	51	90	78	33	22	117	68	729	4·3	9·3	7 NW	2·36	0·40	0·51	10	19	0	1	2
Stony Creek	43 13	79 45	292					61·0	− 2·1	22	87·0	19	38·0	1	21·7			5	4	8	3	23	1	12	29	8	7	8	90	III	V	1 SE	4·53	+1·72	1·35	8	22	0	5	3
*Otonabee	44 20	78 48	674					63·9	− 0·2	10	82·0	19	44·0	3	—																		3·11	+0·15	0·63	8	22	0	0	0
Windsor	42 20	83 4	625					65·8	1·6	30	86·0	19	43·5	3	17·1																		5·09	+1·68	3·21	10	17	0	0	0
Alton	43 51	80 5	1250																																					
Guelph	43 33	80 16						62·9	+ 0·1	18	87·0	20	39·0	3	20·8			6	6	3	4	5	2	0	1	10	4	29	58				4·34	+1·53	0·80	12	18	0	0	0
*North Bruce	44 23	81 25						60·1	1·4	17	83·0	17	43·0	2	—																		4·96	+2·58	1·37	10	20	0	4	5
Collingwood	44 30	80 15	595					60·4	− 1·5	14	81·0	16	42·0	9	21·9																		1·11	+1·01	1·33	10	20	0	0	0
Rocklyn	44 28	80 36	1339																																					
Bala	45 0	79 30	740					63·1	+ 0·5	23	81·5	19	38·0	3	18·0																		1·69	1·25	0·55	9	19	0	3	0
Orillia	44 31	79 24	775					63·3	+ 0·6	11	84·0	15	40·0	1	20·5					0	1	1	5	1	8	13	1	0	30				3·67	+0·72	0·86	14	15	0	2	0
Saugeen	44 30	81 21	656	29·97	30·29	29·61	0·65	59·4	− 1·1	29	80·1	17	36·1	8	17·6			6	5	7	1	12	5	6	5	4	4	19	60				3·57	+1·21	1·05	13	14	0	4	4
St. Catharines	43 10	79 17																																						

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PRECIPITATION AT STATIONS REPORTING RAIN, WEATHER, &c., DURING JUNE, 1905.

STATION	RAINFALL					REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	
	in.			in.		
BRITISH COLUMBIA—						
Goldstream Lake	2·50	10	20	0·91	25	
Somas River	1·46	6	24	0·41	25	Thunder 24, 30.
Sooke Lake	2·54	5	25	0·99	26	
Coquitlam	3·17	4	26	1·90	25	
Naas Harbour	1·36	2	28	0·73	12	Thunder 21, 22.
Skidgate	0·41	3	27	0·24	30	
Royal Oak	1·28	6	24	0·49	8	
Nanaimo	2·36	6	24	1·42	25	
N. W. TERRITORIES—						
Regina	3·58	13	14	0·82	14	Thunder 2, 27, 28, 29.
Duck Lake	2·17	7	23	0·75	13	
Kimball	1·04	15	15	0·70	22	
Lacombe	5·47	7	23	1·90	15	
Beaver Hills, W	4·05	13	17	0·73	2	Thunder 1, 6, 12. Frost 23, 24.
Hanley	1·97	11	19	0·56	14	
Stirling	2·19	9	20	0·55	26	
Dirt Hills	1·08	14	16	1·30	2	
Last Mountain	1·55	10	19	0·76	14	Thunder 3, 8.
Insinger	3·21	10	20	1·31	28	
Saltcoats	2·34	12	18	1·18	13	Thunder 27.
Coutts	1·86	8	22	0·66	26	
Dundurn	3·15	10	20	0·60	13	Thunder 8.
Bruederheim	3·40	14	16	1·15	26	Thunder 3, 7, 28.
Innisfail	11·02	19	11	4·32	11	
MANITOBA—						
Beaver	4·41	11	19	1·05	13	
Moreton	1·33	11	19	0·85	4	Thunder 3, 4, 5, 8, 28.
Rapid City	2·83	9	18	0·62	18	Thunder 3, 4, 8, 28. Aurora 21.
Cartwright	3·96	13	17	1·29	18	Aurora on 22nd.
Norquay	4·62	16	14	0·76	19	Thunder 4, 9, 14, 28.
Gretna	4·46	11	16	1·51	5	Thunder 13.
Belmont	3·86	13	17	1·21	4	Thunder 3, 4, 8, 28.
Rosebank	4·29	12	18	1·27	5	
ONTARIO—						
Gower Point	2·46	8	22	0·78	26	
Deer Park	3·06	10	20	0·65	11	Thunder 18, 25.
N. Williamsburg	1·19	8	22	1·41	27	
Eunismore	2·98	7	23	0·86	5	Thunder 18.
Wiarton	3·37	8	22	1·45	5	Thunder 5, 16, 18, 25.
Ursa	4·66	13	17	1·22	7	
Sydenham	1·65	8	22	1·60	7	
Dutton	3·13	5	25	2·25	5	
Fitzroy Harbour	4·01	10	20	1·51	13	
Lion's Head	1·83	7	23	0·91	6	
Midland	2·72	9	21	1·23	5	Thunder 5, 25.
Scarboro	3·78	10	19	0·73	5	Thunder 2, 5, 18, 25.
Westminster	1·83	7	23	0·62	16	Thunder 1, 5 6, 19.
Montague	4·31	10	20	1·14	7	
MacOne	3·21	12	18	0·65	12	
Goderich	1·88	7	23	0·60	10	
Croydon	3·30	5	25	1·00	7	Thunder 7, 13.
Parma	5·09	8	22	1·70	8	
Jermyn	3·56	8	22	1·20	18	Thunder 7, 18, 25.
Lansdowne	3·11	10	20	1·10	25	Thunder 16, 17, 18, 25.
Orangeville	4·34	9	21	1·21	4	
Princeton	2·65	11	19	1·06	19	Thunder 19, 26.
Emsdale	4·26	14	16	1·64	25	Thunder 1, 10, 13, 18, 25.
Wyoming	2·75	3	27	1·85	6	Thunder 4, 6, 7.
Montague	4·31	8	22	1·14	7	
Wooler	3·71	13	17	1·03	7	Thunder 13, 18, 25.
Huntsville	2·86	12	18	0·66	7	Thunder 25, 26.
Aurora	6·49	11	19	1·54	18	Thunder 5, 16, 18, 19.
Watford	3·06	8	22	1·55	5	
Westport	3·24	10	20	1·37	6	Thunder 16, 17, 18, 25.
Arden	3·18	16	14	0·67	26	Thunder 3, 18, 19, 26.
Smiths Falls	2·32	8	22	0·83	8	Thunder 13, 19.
Georgetown	3·02	12	16	0·70	7	Thunder 1, 5 6, 7, 18, 19, 25. Aurora 22.
Arnprior	3·18	9	21	1·05	13	
Pinisi Bay	3·90	8	22	0·91	25	
Lake Talon	3·46	9	21	0·72	25	
Menard's Bridge	4·58	11	19	0·94	13	
White Fish Bay	4·43	10	20	1·00	11	
Nasbonsing Lake	4·16	11	19	0·87	25	
Turtle Lake	4·41	10	20	0·96	13	
Britannia Bay	4·13	11	19	1·25	16	
QUEBEC—						
Bryson	1·90	8	22	0·40	11	
NEW BRUNSWICK—						
Point Escuminac	2·70	6	23	1·66	27–28	
NOVA SCOTIA—						
Port Morien	1·60	4	26	0·60	7	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JUNE, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	0·20	0·39	0·46	0·48	0·52	0·57	0·72	0·77	0·78	0·66	0·66	0·60	0·53	0·32	.....
Nanaimo	0·06	0·37	0·50	0·53	0·62	0·67	0·70	0·65	0·63	0·66	0·68	0·68	0·69	0·66	0·60	0·07
Agassiz	.....	0·04	0·14	0·29	0·44	0·46	0·54	0·61	0·61	0·53	0·54	0·59	0·47	0·30	0·13	0·03
Battleford	0·05	0·38	0·48	0·47	0·49	0·50	0·51	0·44	0·41	0·42	0·36	0·35	0·33	0·35	0·28	0·22
Indian Head	.....	0·24	0·37	0·45	0·47	0·49	0·47	0·44	0·43	0·43	0·42	0·43	0·39	0·38	0·21	.....
Brandon	.....	0·09	0·29	0·46	0·45	0·48	0·47	0·48	0·46	0·49	0·49	0·56	0·56	0·50	0·40	0·07
Winnipeg	0·12	0·31	0·42	0·47	0·49	0·50	0·48	0·52	0·52	0·52	0·52	0·53	0·51	0·45	0·38	0·05
Woodstock	.....	0·24	0·39	0·48	0·53	0·52	0·61	0·65	0·69	0·71	0·67	0·70	0·67	0·64	0·44	0·03
Toronto	.....	0·18	0·42	0·49	0·53	0·54	0·53	0·58	0·59	0·59	0·56	0·53	0·46	0·55	0·45	0·01
Lindsay	0·04	0·34	0·39	0·36	0·43	0·48	0·51	0.53	0·49	0·49	0·52	0·49	0·38	0·34	0·32	0·10
Gravenhurst	.....	0·21	0·44	0·50	0·52	0·59	0·62	0·63	0·63	0·68	0·67	0·69	0·65	0·63	0·66	0·34
Kingston	0·06	0·31	0·43	0·44	0·49	0·46	0·53	0·54	0·57	0·60	0·59	0·59	0·59	0·57	0·34	0·01
Ottawa	.....	0·11	0·33	0·43	0·46	0·46	0·52	0·58	0·58	0·59	0·63	0·59	0·54	0·48	0·23	.....
Montreal	.....	0·24	0·36	0·41	0·38	0·40	0·46	0·49	0·51	0·54	0·48	0·50	0·49	0·43	0·12	.....
Quebec	.....	0·20	0·35	0·38	0·42	0·44	0·43	0·51	0·53	0·54	0·54	0·53	0·51	0·53	0·33	0·01
Fredericton	0·01	0·22	0·29	0·42	0·39	0·43	0·44	0·51	0·50	0·45	0·46	0·45	0·41	0·43	0·40	0·16

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·47	0·54	0·36	0·36	0·35	0·38	0·42	0·52	0·47	0·40	0·46	0·46	0·42	0·42	0·39	0·38
Difference from average	+0·05	—	+0·04	−0·14	−0·07	−0·08	−0·10	−0·01	−0·10	−0·14	—	−0·07	−0·06	0·11	—	−0·08
Maximum daily amount	0·84	0·92	0·73	0·90	0·83	0·92	0·86	0·94	0·89	0·90	0·91	0·93	0·82	0·99	0·89	0·94
Date	20	7	8	9	30	30	30	27	29	29	28	24	2	3	1	24
No. of days completely clouded	2	2	8	10	12	6	8	4	3	8	4	8	2	6	4	7

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Savanne.
4. Albion, IV.
6. Albion, IV.
8. Quebec, IV.
9. Pipestone, Aweme, II.
10. Winnipeg, II ; Albion, II ; Hillsview, I.
11. Albion, IV.
13. Threehills Creek, IV.
14. Albion, IV.
18. Albion, IV.
19. Albion, IV.
20. Gray Hill, Cape Chatte, II.
21. Albion, IV ; Rapid City.
22. Albion, IV ; Savanne, Calvin, Georgetown, IV.
23. Albion, III.

Thunder recorded on :

1. Gravenhurst, Albion, Big Creek, Princeton, Beaver Hills W., Haliburton, Beatrice, Meaford, Cockburn Island, Birnam, Paris, Port Dover, Lakefield, Point Clark, Orillia, Lucknow, Clinton, Emsdale, Georgetown, London.

2. Montreal, Medicine Hat, Qu'Appelle, Toronto, Saugeen, Swift Current, Port Stanley, Albion, Oakdale Park, Regina, Foxleigh, Chaplin, Moose Jaw, Gatesgarth, Bon Accord, Threehills Creek, Estevan, Wetaskiwin, Brome, Sutton, N. Bruce, Bala, N. Gower, Madoc, Scarboro, Deseronto, Channel Island, Sherbrooke, Victoria, Alta, Crescent Lake.

3. Edmonton, Qu'Appelle, Albion, Hillsview, Pipestone, Almasippi, Aweme, St. Peters, Chaplin, Knee Hill, Threehills Creek, Wetaskiwin, Didsbury, Gray Hill, Hillsdown, Paris, Last Mountain, Insinger, Bruederheim, Savanne, Kinmount, Kenora, Point Clark, Arden, Moreton, Rapid City, Belmont, Crescent Lake.

4. Barkerville, Minnedosa, Swift Current, Hillview, Almasippi, Aweme, Chaplin, Estevan, Port Dover, Port Burwell, Wyoming, Moreton, Norquay, London, Crescent Lake.

5. Toronto, Saugeen, Port Stanley, Chaplin, Stony Creek, Brantford, Owen Sound, Agincourt, Meaford, Birnam, Paris, Hamilton, Point Clark, N. Bruce, Lucknow, Clinton, Port Burwell, Wiarton, Midland, Scarboro, Westminster, Aurora, Georgetown, Moreton, London.

6. Saugeen, Port Stanley, Albion, Big Creek, Hillsdown, Beaver Hills W., Brantford, Birnam, Paris, Point Clark, Sutton, Lucknow, Clinton, Thunder Bay, Georgetown, London.

7. Edmonton, Toronto, Port Stanley, Princeton, Nelson, Foxleigh, Bon Accord, Clinton, Threehills Creek, Gray Hill, Hillsdown, Bruederheim, Agincourt, Paris, Madoc, Croydon, Jeanyn, Wyoming, Georgetown.

8. Medicine Hat, Winnipeg, Stony Mountain, Oakbank, Oakdale Park, Pipestone, Almasippi, Aweme, St. Peter's, Chaplin, Dundurn, Kenora, Moreton, Rapid City.

9. Stony Mountain, Chaplin, Norquay.

10. Quesnel, N. Nicomen, St. Peter's, Chaplin, Bon Accord, Port Dover, London.

11. Chaplin, Bon Accord, Wetaskiwin, Gray Hill, Hillsdown.

12. Swift Current, Golden, Regina, Chaplin, Knee Hill, Threehills Creek, Estevan, Crane Lake, Gray Hill, Lethbridge, Hillsdown, Beaver Hills W., Stony Creek, Madoc, Haliburton, Britannia.

13. Medicine Hat, Edmonton, Qu'Appelle, Quebec, Ottawa, Winnipeg, Minnedosa, Hillview, Almasippi, Aweme, Chaplin, Gatesgarth, Gleichen, Hillsdown, Brome, Savanne, Kenora, Croydon, Emsdale, Westport, Rapid City, Gretna, Sherbrooke.

14. New Westminster, Winnipeg, Princeton, Nelson, Bon Accord, Gray Hill, Bruce Mines, Norquay.

15. Swift Current, Bullion.

16. Toronto, N. Nicomen, Princeton, Wiarton, Lansdowne, Aurora.

17. Gravenhurst, N. Nicomen, Kinmount, Lansdowne.

18. Rockliffe, Prince Albert, Shawinigan Falls, Stony Creek, Haliburton, Owen Sound, Agincourt, Calvin, Peterboro, Point Clark, Sutton, N, Bruce, Orillia, Lucknow, Madoc, Deer Park, Ennismore, Wiarton, Midland, Jermyn, Lansdowne, Emsdale, Wooler, Aurora, Arden, Georgetown, Lindsay, Deseronto.

19. Montreal, Medicine Hat, Prince Albert, Toronto, Port Stanley, Gravenhurst, Elk River, Gleichen, Stony Creek, Brantford, Agincourt, Paris, Hamilton, Uplands, Sutton, Princeton, Georgetown, Britannia.

20. Barkerville, Ottawa, St. Agathe.

21. Edmonton, Barkerville, N. Nicomen, Big Creek, Princeton, Athabasca Landing, Bon Accord, Threehills Creek, Hillsdown, Naas Harbour.

22. Quebec, Prince Albert, Princeton, Chaplin, Vancouver.

23. Saugeen, Rossland, Cowichan.

24. Bamfield, N. Nicomen, Princeton, Kinmount, Nanaimo.

25. St. John, Grand Manan, Kingston, Parry Sound, Haliburton, Owen Sound, Agincourt, Bruce Mines, Cockburn Island, Port Hope, Uplands, Point Clark, N. Bruce, Orillia, Bala, Collingwood, Lucknow, Madoc, Deer Park, Wiarton, Midland, Scarboro, Jermyn, Lansdowne, Huntsville, Westport, Georgetown, Lindsay, Deseronto, Vancouver, Winter Harbor.

26. Yarmouth, Medicine Hat, Halifax, Parry Sound, Swift Current, Port Stanley, Big Creek, Chaplin, Moose Jaw, Stony Creek, Brantford, Beatrice, Birnam, Paris, Princeton, Sutton, Bala, N. Gower, Clinton, Deseronto, Arden.

27. Bermuda, Medicine Hat, Swift Current, St. Agathe, Sable Island, Oakdale Park, Quesnel, Big Creek, Regina, Indian Head, Chaplin, Moose Jaw, Gatesgarth, Threehills Creek, Estevan, Crane Lake, Gray Hill, Saltcoats, Brome, Smiths Falls.

28. Bermuda, Battleford, Barkerville, Winnipeg, Minnedosa, Swift Current, Hillsview, Oakbank, Nelson, Chaplin, Moose Jaw, Gatesgarth, Bon Accord, Grenfell, Insinger, Bruederheim, Kenora, Moreton, Rapid City, Norquay, Belmont, Crescent Lake.

29. Prince Albert, Swift Current, Nelson, Chaplin, Moose Jaw, Gatesgarth, Victoria Alta.

30. Port Arthur, Swift Current, Princeton, Thetis Island, Nelson, Cowichan, Chicoutimi, Somas River, Nanaimo.

FORECASTS FOR JUNE, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1061. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	90	68	14	8	83·3
Lake Superior	103	68	25	10	78·1
Lower Lake Region	117	84	26	7	82·9
Georgian Bay	117	76	27	14	76·5
Ottawa Valley	106	67	27	12	75·9
Upper St. Lawrence	106	68	28	10	77·3
Lower St. Lawrence	101	64	26	11	76.2
Gulf	102	65	20	17	73·5
Maritime Provinces, West	109	76	20	13	78·9
Maritime Provinces, East	110	75	21	14	77·8
Total	1061	711	234	116	78·0

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
28th July, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

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Monthly Weather Review.

VOL. XXIX. JULY, 1905. No. 7.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather over the lower mainland and islands of British Columbia was exceedingly fine and somewhat warmer than usual; and in many districts the rainfall was below the average. Over the upper mainland the weather conditions were similar to those further westward, but there was much less sunshine.

In the North-West Territories the weather was mostly fair with somewhat less sunshine than usual, and while the rainfall exceeded the average at many northern and western stations it was light at most places elsewhere. Temperatures exceeding 90° were recorded in some localities, and at a few places light frosts were noted earlier in the month. The condition of vegetation was normal.

The weather in Manitoba was of the usual July type, thunderstorms and heavy showers causing local excesses in the total precipitation. In most places bright sunshine was excessive, and in some districts the weather was exceedingly fine and dry. The highest temperatures were between 80° and 90°, the latter figure only being exceeded at St Albans. Light frost was reported from a few places but the condition of vegetation on the 31st was excellent.

In Ontario the weather was slightly warmer than usual, and the rainfall was generally excessive. These conditions, however, were reversed in several districts contiguous to Lake Erie. There was somewhat less bright sunshine than usual, but there was much fine weather, more especially during the second half of the month. On or about the 18th, temperatures exceeding 90° were recorded at most places in western counties. On the 31st the condition of vegetation was above the average, plants being unusually green and hardy.

In the Province of Quebec the weather was somewhat warm and dry, and the amount of bright sunshine was below the average. Showers or thunderstorms were frequent from the 8th to the 20th, and comparatively fine weather occurred before the former and after the latter date. High temperatures were recorded early in the month, 90° occurring at a few places on or about the 3rd. During the latter half of the month the weather was cooler than from the 1st to 15th. Owing to drought in many places vegetation was somewhat withered.

The weather conditions in New Brunswick were similar to the conditions in Quebec, it being generally warm and dry; at a few places however the mean temperature was below the average. Fog was unusually frequent in districts near the coast, whilst inland there was much bright sunshine. High temperatures prevailed up to the 15th, 90° being exceeded at several stations. Vegetation suffered from drought in some districts.

In Nova Scotia the weather was comparatively warm and dry, and, although fogs were frequent near the coast during the first half of the month, it was exceedingly fine inland. High temperatures were general up to the 15th, after which the weather was cooler and the sky was frequently overcast. The condition of vegetation was normal.

The weather in Prince Edward Island was generally warm and dry, the mean temperature exceeding the average and the rainfall being deficient. Rain occurred on or about the 3rd, 4th, 27th and 28th, also frequently from the 11th to 22nd, whilst the intervening periods were comparatively fine. Vegetation was in fair condition on the 31st.—F. F. Payne.

ATMOSPHERIC PRESSURE.

Departures from average mean atmospheric pressure were small, except in Saskatchewan, where a positive departure of 0·10 of an inch was recorded at Battleford. In Alberta, Manitoba and the Maritime Provinces, the mean pressure was slightly above normal and in British Columbia, Ontario and Quebec, it was normal or slightly below. The subnormal extremes were 0·05 at White River and Ottawa.

LOW AREAS.

Six areas of low pressure were charted for July, the majority occurring in the latter half of the month. The area which originated in the Mississippi Valley and passed eastward to the Atlantic from the 20th to the 23rd was the only one which did not cause rain and thunderstorms in the Lake Region. No. 1 which appeared in the Southwest States and passed northeasterly over Lake Superior on the 5th and thence eastward to the Atlantic was the most energetic one of the month. The barometer, reduced to sea level, falling to 29·32 inches and the disturbance was accompanied by heavy rain which caused considerable damage by washouts in the Rainy River District.

The paths of the low areas were very irregular across the Continent, but converged somewhat on reaching the Atlantic between the 40th and 50th parallels of North Latitude.

Rain accompanying the low areas was heaviest in the Saskatchewan Valley, the Lake Region, and in the Maritime Provinces. Many thunderstorms also occurred in the Lake Region but to a less extent elsewhere in the Dominion.

HIGH AREAS.

The six areas of high pressure charted for July first appeared in the north-west portion of the Dominion and after reaching the Lake Region, three drew to the southward and out into the Atlantic, the other three took a more northerly course to the sea. The two first areas were the most pronounced of the series, and occurred in the first half of the month. All the areas lost energy after reaching the Great Lakes, but they were invariably attended by fine weather and a cooler atmosphere.

WINDS.

In British Columbia over Vancouver Island and on the Mainland the direction was chiefly southerly to westerly with seven days of strong and fifteen of fresh breezes.

In the North-West Territories no one direction predominated, the winds being variable. The force of a gale was once experienced and there were besides six days with strong and fifteen with fresh breezes.

In Manitoba the winds were also largely variable but favouring somewhat the north and west direction. On eight days the winds blew strong and on eleven fresh.

In the Lake Region no one direction was paramount, but there was an inclination towards the westerly and southerly directions. There were six days with strong and twelve with fresh breezes.

In the Ottawa and Upper St. Lawrence Valleys the south and west directions were largely in evidence with five days of strong and fifteen of fresh breezes.

In the Lower St. Lawrence Valley and the Gulf the south and west directions also prevailed with five days of strong and seventeen of fresh breezes.

In the Maritime Provinces the direction was likewise mainly southerly to westerly with fifteen days of fresh but only one day of strong breezes.

No gales were reported from any station where storm signals are displayed and a warning issued for Sault Ste. Marie on the 23rd was not justified by subsequent high winds.

BRIGHT SUNSHINE.

Bright sunshine was above the average amount in British Columbia and in Manitoba, but over the large remaining portion of the Dominion the average amount was not maintained. The per centage of possible duration ranged from 68 at Victoria and Winnipeg to 47 at Lindsay and Quebec, and 41 at Battleford and Ottawa.

TEMPERATURE.

The temperature was from 1 to 2 degrees below average in Assiniboia, also in Manitoba, except in the northern portion; average over the Lake Superior district and in the extreme south-western counties of Ontario, and everywhere else above the average. Interior stations in British Columbia recorded the largest positive departures, amounting to 5 degrees. Quebec and the Maritime Provinces gave a positive departure of about 2 degrees, and the larger part of Ontario from 1 to 2 degrees.

The highest and Lowest temperatures in each Province during July, 1905, were :

British Columbia,	104° ·5 on 21st at Spence's Bridge,	30° ·0 on 4th at Big Creek.
N. W. Territories,	96° ·5 on 9th at Threehills Creek.	29° ·5 on 18th at Calgary.
Manitoba,	93° ·5 on 11th at Aweme,	30° ·0 on 8th at Barnardo.
Ontario,	96° ·0 on 18th at Stony Creek.	29° ·0 on 31st at Savanne.
Quebec,	90° ·6 on 8th at Chicoutimi.	42° ·0 on 23rd at Brome.
New Brunswiek,	92° ·0 on 7th at Chatham,	35° ·0 on 27th at Dalhousie.
Nova Scotia,	90° ·9 on 10th at Halifax,	42° ·0 on 22nd at Parrsboro'.
Prince Edward Island,	85° ·0 on 10th at Charlottetown.	47° ·0 on 1st at Hamilton.

PRECIPITATION.

The precipitation was much in excess of the average amount in nearly all parts of Ontario, except along the shores of Lake Erie. It was also well above the average in Eastern Manitoba, and also in a portion of south-western Quebec; elsewhere over the large remaining area in the Dominion, the average rainfall was not maintained, if we except a few isolated localties, noticeably Swift Current, with a positive departure of 1·4 inches, and Edmonton and Qu'Appelle with three and two-tenths respectively. Over the districts where the rainfall was in excess of the average, the positive departures were often excessive. Port Arthur was 3·8 inches above the usual amount: Bala, 3·9 inches; Stratford, 3·6 inches; Toronto, 1·9 inches; Barrie, 2·0 inches; Gravenhurst, 2·2 inches; White River, 2·0 inches; Winnipeg, 1·3 inches, and Brome, in south-western Quebec, 3·0 inches.

The chief negative departures were as follows: British Columbia, from three-tenths to an inch; Calgary, 1·9 inches; Medicine Hat, 1·2 inches; Prince Albert, 1·4 inches; Minnedosa, 1·2 inches; Quebec, 1·7 inches; Father Point, 1·0 inch, and the Maritime Provinces, from six-tenths to 2 inches.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																						
BRITISH COLUMBIA—																																								
Victoria	48 21	123 19	85	30·02	30·30	29·85	0·45	61·2	— 1·2	11	84·2	6	50·5	1	15.5	.....	.....	2	1	8	21	9	12	103	377	81	9	121	741	8·1	21·0	9 W	0·10	—0·30	0·07	1	7	0	0	0
Barkerville	53 2	121 35	4180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Agassiz	49 14	121 31	52	.....	.....	.....	.....	69·2	+ 7·6	16	93·0	8	50·0	16	30·0	.....	.....	3	0	27	0	0	0	45	0	21	0	0	93	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Simpson	54 31	130 26	26	30·06	30·39	29·73	0·66	59·6	+ 3·1	18	77·8	31	44·8	12	15·8	.....	.....	6	7	4	0	5	1	18	9	7	2	16	62	.....	.....	.....	2·40	+0·33	0·62	7	24	0	0	0
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	64·8	—	4	93·0	21	44·0	15	29·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·71	+0·25	1·47	12	17	0	1	0
Kamloops	50 41	120 29	1193	29·89	30·58	29·72	0·86	72·4	+ 1·0	12	97·5	9	52·0	15	26·6	.....	.....	4	2	5	0	7	0	8	0	3	2	37	62	.....	9·0	9 SE	1·19	—	0·50	7	21	0	0	0
Princeton	49 29	120 29	1650	.....	.....	.....	.....	61·9	+ 2·7	11	98·0	22	39·0	18	36·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·62	0·81	0·30	4	21	0	0	0
Pilot Bay	49 39	116 55	2000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·07	+0·71	0·69	6	25	0	8	0
Rivers Inlet	51 39	127 19	20	30·05	30·37	29·85	0·52	60·1	+ 2·1	12	90·9	26	47·3	3	15·1	55·6	90	5	4	0	0	4	0	0	0	46	0	13	93	11	IV	26 W	1·10	—2·87	0·53	7	21	0	0	11
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	58·7	+ 1·6	11	91·0	21	29·2	13	31·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·33	—1·26	0·18	2	29	0	0	0
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	69·7	+ 5·5	11	101·0	21	47·0	6	33·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·34	—0·79	0·16	3	28	0	0	0
*a*Nanaimo	49 10	123 57	....	29·90	30·18	29·72	0·46	61·6	—	6	87·0	21	48·5	11	21·4	55·7	74	4	6	7	9	11	7	0	1	1	15	39	93	.....	.....	.....	1·92	—	0·83	8	22	0	2	0
Chilliwack	49 10	121 57	21	30·02	30·30	29·85	0·45	65·6	—	7	92·5	9	46·0	12	23·5	60·8	78	4	3	0	2	6	22	21	28	7	0	0	86	.....	.....	.....	0·57	—	0·31	5	26	0	1	0
Port Bobs	50 32	128 3	.....	.....	.....	.....	.....	58·2	—	9	78·0	9	45·0	2	15·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·11	—	0·68	4	27	0	0	0
Midway	49 0	118 46	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	63·9	+ 2·0	10	91·5	22	45·0	18	25·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Kootenay	49 20	117 50	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·39	+0·80	0·60	6	24	0	3	0
Garry Point	49 21	123 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tobacco Plains	49 1	115 5	2681	.....	.....	.....	.....	61·3	+ 1·4	10	80·0	9	44·5	2	19·9	.....	.....	.....	.....	1	6	11	12	30	1	6	15	8	93	7·2	12·0	10 E	1·68	+0·76	0·66	6	25	0	0	0
*a*Vancouver	49 17	123 5	.....	29·89	30·18	29·71	0·47	64·1	—	1	86·6	9	46·2	7	23·0	58·9	73	3	3	0	0	11	6	2	5	4	3	31	62	11	V	6 SE	2·28	+0·54	0·59	10	20	0	5	0
New Westminster	49 13	122 54	330	30·01	30·27	29·86	0·41	64·3	+ 1·4	12	89·2	8	46·0	7	21·8	.....	.....	3	5	2	1	2	0	6	23	2	0	16	62	.....	VII	1 SE	1·99	—	1·25	7	23	1	3	1
Ladner	49 5	123 1	....	.....	.....	.....	.....	62·4	—	7	81·0	25	43·0	16	23·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·93	—0·77	0·41	5	25	0	3	0
North Nicomen	49 12	122 2	59	.....	.....	.....	.....	66·0	+ 2·1	13	91·0	8	47·0	6	23·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·75	—	0·30	5	26	0	1	0
Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	66·7	+ 1·9	11	96·0	20	40·0	2	35·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·65	—1·56	0·25	4	25	0	1	0
Clayoquot	49 11	125 17	40	.....	.....	.....	.....	58·6	—	7	77·0	9	46·5	3	14·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·53	—0·91	0·35	3	28	0	0	0
Cranbrook	49 30	115 50	2990	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·25	—	0·20	2	29	0	0	12
Massett	53 58	132 9	30	.....	.....	.....	.....	61·7	—	7	83·0	29	50·6	13	17·2	.....	.....	.....	.....	3	3	2	7	2	3	10	2	0	62	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bullion	52 45	121 55	2775	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·65	—	0·40	2	29	0	0	0
Bella Coola	52 40	126 54	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cowichan	48 25	123 42	170	.....	.....	.....	.....	63·2	—	2	86·8	8	43·2	6	25·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson	49 29	117 21	1760	.....	.....	.....	.....	66·1	—	1	93·0	9	45·0	1	33·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·70	—	0·26	7	21	0	3	0
Matsqui	49 7	122 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·92	—	1·25	10	21	0	7	0
Okanagan Mission	49 52	119 29	1200	.....	.....	.....	.....	68·6	—	7	96·0	23	44·8	8	32·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·47	—	0·24	3	28	0	0	0
Alberni	49 15	124 49	.....	.....	.....	.....	.....	66·6	+ 1·2	11	97·2	22	43·0	11	32·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·96	—0·15	0·69	4	27	0	2	0
Kuper Island	48 54	123 38	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Scott	50 48	128 27	.....	.....	.....	.....	.....	56·3	—	8	69·9	1	44·5	1	51·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glacier	51 14	117 29	4072	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·00	—	0·43	8	23	0	0	0
Golden	51 16	116 55	2550	.....	.....	.....	.....	63·9	—	4	92·0	22	40·0	12	30·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spence's Bridge	50 25	121 30	760	.....	.....	.....	.....	74·4	+ 1·7	10	104·5	21	53·0	15	30·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	3	0
Bamfield	48 50	125 9	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·79	+0·25	0·57	5	26	0	0	0
Big Creek	51 10	123 0	.....	.....	.....	.....	.....	60·2	—	1	90·0	21	33·0	4	31·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Niekel Plate	49 30	120 0	5400	.....	.....	.....	.....	56·5	—	2	83·0	22	34·0	14	22·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·30	—	0·39	8	11	0	1	0
Thetis Island	49 0	123 40	.....	.....	.....	.....	.....	62·7	—	1	83·1	21	48·2	12	19·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·11	—	0·99	11	20	0	7	0
Hedley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·49	—	0·17	5	26	0	4	0
Kitamaat	53 59	128 42	.....	.....	.....	.....	.....	63·6	—	3	91·0	26	46·0	12	18·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rossland	49 5	117 48	3400	.....	.....	.....	.....	63·7	—	2	90·5	21	38·0	11	24·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·47	—	0·52	6	25	0	0	0
*Port Essington	54 9	129 55	10	.....	.....	.....	.....	61·1	—	1	84·0	31	50·0	5	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·63	—	0·56	10	20	0	12	0
N. W. TERRITORIES—																																	3·04	—	0·43	10	21	0	0	0
Medicine Hat	50 1	110 37	2161	29·93	30·27	29·56	0·71	68·3	+ 0·6	21	95·0	9	46·7	12	26·5	.....	.....	5	0	1	1	1	1	3	0	12	7	23	62	.....	10·0	14 W	0·85	—1·23	0·21	8	19	0	9	0
Edmonton	53 33	113 30	2158	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swift Current	50 20	107 45	2439	29·98	30·28	29·68	0·60	64·2	— 1·7	19	85·0	9	48·0	3	22·9	.....	.....	4	0	6	8	9	6	8	5	11	3	6	62	.....	13·0	9 S	3·98	+1·37	1·40	14	16	0	11	0
Qu'Appelle	50 30	103 47	2115	29·96	30·25	29·60	0·65	62·6	— 0·9	22	81·0	13	40·4	23	22·3	.....	.....	5	3	3	6	4	9	7	9	6	14	4	62	.....	17·7	18 W	2·93	+0·25	0·83	13	16	0	0	0
Calgary	51 2	114 2	3389	29·95	30·30	29·54	0·76	61·2	+ 1·1	21	71·0	9	40·0	18	28·1	.....	.....	5	2	9	6	3	9	1	6	9	11	9	62	.....	16·0	14 W	0·91	—1·97	0·24	7	22	0	5	0
Prince Albert	53 10	106 0	1432	29·89	30·22	29·49	0·73	63·4	+ 1·7	20	81·9	9	36·5	30	25·7	.....	.....	5	2	7	0	3	4	10	6	6	9	17	62	.....	14·0	29 N	0·95	—1·33	0·51	7	24	0	3	0
Battleford	52 41	108 20	1620	29·98	30·28	29·68	0·60	63·9	+ 0·2	14	87·0	13	41·0	30	26·4	.....	.....	5	0	97	10	72	32	50	63	127	52	241	744	4·7	25·0	4 NW	2·35	+0·11	1·10	9	19	0	5	2

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure.				Temperature.								Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from									Velocity of wind.		Precipitation.			Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
				Mean reduced.	Highest.	Lowest.	Range.	Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.					N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Highest day's velocity.	Date and direction from.	Amount.	Difference from average.	Heaviest fall in month.				
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°																						
ONTARIO—*Con.*																																				
Brantford	43 10	80 21	750					70·5	+ 0·5	22	93·5	18	50·0	25	21·6					54	78	45	119	48	289	58	51	11	744	7·9	17·3	4 SE	2·10	+0·12	1·16	9	22	0	5	0
Parry Sound	45 19	80 0	635	29·93	30·25	29·63	0·59	70·0	+ 1·0	29	93·0	3	51·0	1	17·1			5	0	51	78	45	119	48	289	58	51	11	744	7·9	17·3	4 SE	3·61	+0·68	0·93	15	14	0	5	0
Owen Sound	44 34	80 55	597					68·2	+ 1·7	27	91·0	18	45·0	21	21·6					17	1	3	1	32	10	6	20	0	93				4·36	+1·54	1·20	13	18	0	4	2
Beatrice	45 8	79 20	806					66·1	+ 1·5	28	87·0	3	41·0	21	20·2			5	5	4	1	1	7	17	9	1	13	10	93	1	III	3 S	1·03	+0·88	0·72	11	17	0	7	0
Coldwater	44 38	79 40	600					65·4	− 1·6	19	90·0	18	39·0	21	26·1																		1·20	+1·55	1·70	5	26	0	0	0
Gravenhurst	44 54	79 20	770					68·0	+ 1·1	31	87·0	18	43·0	21	20·1			1	2	15	2	7	11	21	3	19	4	11	93	II	V	4 S	5·26	+2·24	0·92	13	16	3	9	0
Haliburton	45 1	78 28						66·3	+ 1·1	18	90·0	3	39·0	21	21·0																		5·67	+2·27	0·94	19	12	0	11	0
*Point Clark	44 5	81 44	595					68·2	+ 1·6	33	95·0	21	54·0	15				3	0	38	3	0	0	33	5	2	12	0	93	IV	VIII	21 N	1·98	−0·58	1·07	3	28	0	9	0
Birnam	43 2	81 55	600					67·6	− 0·9	22	89·3	18	48·1	22	16·8					21	3	3	1	15	9	2	7	1	62				5·62	+2·71	1·16	10	21	0	6	1
London	42 59	81 13	808	29·92	30·25	29·61	0·64	69·2	− 0·6	22	95·5	18	46·5	21	20·1	64·1	78	5	2	3	4	0	9	1	39	20	11	0	93	I	II	8 SW	2·48	−0·62	0·42	15	11	0	7	0
Port Stanley	42 40	81 13	592	29·98	30·22	29·68	0·54	68·8	+ 0·2	31	87·0	19	49·6	21	18·5			5	2	4	4	2	18	2	8	11	11	2	62		18·0	24 SW	1·92	−1·18	0·58	14	14	1	4	2
Woodstock	43 8	80 47	980							30										51	60	68	131	39	114	104	135	12	741	9·0								
Port Dover	42 47	80 13	635					68·5	− 1·0	3	85·3	18	49·2	22	5·2																		1·29	−2·16	0·30	11	20	0	4	0
Pelee Island	41 50	82 38	585					72·6	− 1·8	23	85·5	20	62·0	3	8·8																		1·27	−2·11	0·51	5	26	0	0	0
Paris	43 12	80 25	840					67·6	− 1·8	16	91·5	19	40·0	27	28·8																		1·95	−0·48	0·56	11	20	0	4	0
Bancroft	45 1	77 50						68·4	+ 3·7	14	87·0	18	42·0	21	20·3																		4·70	+1·50	1·19	11	20	0	3	0
Calvin	46 15	78 18																																				
Agincourt	43 47	79 16						68·0	− 0·9	10	92·0	19	48·0	22	20·4																		2·72	+0·19	0·57	8	23	0	10	0
Hamilton	43 16	79 51	803																																			
Port Hope	43 56	78 20						67·5	− 1·3	10	89·0	17	49·0	26	17·7																		1·17	−1·17	0·49	9	22	0	4	0
Kinmount	44 45	78 38						67·1	−	8	87·5	3	40·0	21	22·1																		7·95		2·75	14	17	0	7	1
Cockburn Island	45 57	83 18	610					64·8	−	7	87·0	19	47·0	10	19·2					1	2	1	10	7	12	7	9	7	62				3·79	−	1·10	15	15	0	3	4
Chatham	42 23	82 42	595					71·9	+ 1·2	20	95·0	18	51·0	26	22·5																		3·59	+0·79	0·95	10	21	0	0	0
Meaford	44 37	80 37						67·0	−	7	7·4	19	49·0	24	15·4					9	12	4	2	8	21	4	2	0	62				3·18		0·57	14	17	0	7	0
Listowel	43 44	80 58						67·9	+ 0·5	10	89·0	18	44·0	25	18·5																		3·46	+0·52	0·85	9	22	0	0	0
Bruce Mines	46 18	83 55	595					64·9	−	7	87·5	17	42·0	14	21·8																		4·00		2·32	9	22	0	3	0
Rat Portage (Kenora)	49 48	94 32	1102					64·8	−	6	86·0	2	49·1	9	19·4																		3·51	−	1·39	12	27	1	6	0
Sturgeon Falls	46 16	79 54																																				
Uplands	45 48	79 25						61·3	+ 0·4	20	88·6	3	35·8	21	20·1					0	2	1	1	0	10	12	5	0	31				1·98	−0·74	0·68	7	24	0	4	0
Toronto	43 40	79 24	350	29·93	30·23	29·70	0·53	69·7	+ 1·2	64	92·1	18	51·3	21	18·3			6	2	122	96	62	9	180	80	75	109	11	744	8·6	13·1	20 NW	4·72	+1·91	1·35	14	16	1	6	0
Welland	42 59	79 17	425					71·2	+ 1·1	18	91·0	18	50·0	22	19·6																		2·20	−0·99	0·66	11	20	0	0	0
Peterborough	44 17	78 19	722					68·3	− 2·2	35	92·0	18	46·0	21	24·3																		1·13	−1·92	0·35	8	20	0	0	0
Lindsay	44 20	78 45	872	29·90	30·17	29·70	0·47	69·2	+ 2·1	21	89·1	18	46·0	21	19·5	63·0	83	6	6	10	0	2	9	22	6	10	9	25	93	I	II	5 E	2·84	0·00	0·59	18	13	0	6	0
Deseronto	44 11	77 4	261																																			
Lakefield	44 25	78 15						69·0	+ 0·5	21	89·0	18	49·0	21	18·4																		2·25	0·34	0·63	12	19	0	0	0
Kingston	44 13	76 29	285	29·92	30·18	29·67	0·51	67·9	0·3	31	84·1	19	51·1	21	12·3			6	5	3	3	1	9	11	22	8	1	4	62		17·5	24 SW	4·55	+1·53	1·51	11	17	0	1	0
Clontarf	45 23	77 9						68·1	+ 1·3	18	93·0	18	41·7	21	20·4																		4·88	+2·09	1·41	12	15	0	8	0
Ottawa	45 26	75 42	291	29·88	30·13	29·59	0·54	70·0	+ 0·5	22	90·0	18	51·0	21	17·2			6	4	3	8	8	7	9	9	4	7	0	62		III	14 W	4·10	+0·56	0·93	16	10	0	4	0
Rockliffe	46 9	78 6	557	29·91	30·24	29·63	0·61	67·4	+ 1·6	28	88·0	3	46·0	22	21·8			8	6	0	6	1	1	4	3	6	1	40	62				3·61	+0·44	0·77	18	12	0	7	0
*Sarnia	42 59	82 24	586					68·6	− 0·3	11	95·0	18	53·0	22						15	0	3	3	20	4	6	2	40	93				3·53	+1·25	1·14	5	26	0	0	0
Stratford	43 23	81 0	1191					67·8	− 0·3	38	87·0	18	49·0	21																			6·75	+3·55	4·86	4	27	0	0	0
Lucknow	43 56	81 30						67·4	− 0·3	18	88·6	18	43·3	21	20·5																		1·25	+1·60	1·62	13	17	1	9	0
White River	48 35	85 16	1252	29·88	30·27	29·32	0·95	60·4	− 0·1	16	85·5	3	31·5	15	27·2			6	5	27	37	28	142	45	222	49	113	81	744	5·2	12·5	21 NW	4·11	+1·96	1·07	14	13	0	3	0
Port Arthur	48 27	89 12	644	29·92	30·26	29·35	0·91	61·4	− 0·7	25	82·0	18	42·0	9	19·6			5	6	68	195	50	85	38	23	39	181	65	744	4·3	12·0	3 NE	7·33	+3·77	2·62	14	17	0	3	5
Stony Creek	43 13	79 45	292					71·0	− 0·2	21	96·0	18	44·0	7	19·8			4	3	9	6	20	2	16	19	13	4	4	93	III	VI	30 E	3·33	+0·21	1·47	7	24	0	3	1
*Otonabee	44 20	78 18	671					69·4	− 0·3	10	90·0	18	50·0	21	—					2	6	10	17	3	30	3	22	0	93				1·40	−2·17	0·38	7	21	0	0	0
Windsor	42 20	83 4	625					71·0	1·5	31	88·0	19	51·6	25	16·8																		3·46	+0·31	0·82	9	17	0	0	0
Alton	43 51	80 5	1250																																			
Guelph	43 33	80 16						67·7	0·2	18	89·0	18	47·0	21	18·1					5	2	15	0	0	1	23	3	13	62				4·67	+2·12	1·63	10	21	0	0	0
*North Bruce	44 23	81 25						66·2	− 0·1	18	84·0	17	50·0	21						11	1	6	13	24	23	7	5	0	93				2·68	+0·21	0·35	17	14	0	11	2
Collingwood	44 30	80 15	595					67·9	+ 0·8	14	91·0	19	45·0	15	16·1																		2·77	+0·30	0·70	14	17	0	2	0
Rocklyn	44 28	80 36	1339																																			
Bala	45 0	79 30	740					70·7	+ 4·6	23	85·0	3	50·0	21	17·1																		7·01	+3·93	2·45	10	18	0	6	0
Orillia	44 34	79 24	775																																			
Saugeen	44 30	81 21	656	29·91	30·30	29·60	0·70	67·7	+ 1·2	29	84·0	16	47·2	21	15·6			5	4	14	1	5	6	5	19	2	5	5	62				2·65	+0·46	0·89	14	13	0	3	0
St. Catharines	43 10	79 17																																				

| | | |

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING JULY, 1905.

STATION	RAINFALL					REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	
	in.			in.		
BRITISH COLUMBIA—						
Skidgate	0·31	7	23	0·11	2	
Sooke Lake	1·75	4	26	1·00	28	27th Tempest.
Somas River	0·55	3	27	0·36	15	
Royal Oak	0·09	2	29	0·05	15	26th Thunder storm.
Nanaimo	1·48	6	25	0·62	14	
Goldstream Lake	0·26	5	26	0·08	15	
Naas Harbour	1·49	8	23	1·17	5	20th Thunder.
Coquitlam	1·23	3	28	0·61	14	Thunder 26, 27.
N. W. TERRITORIES—						
Duck Lake	1·20	6	25	0·60	9	
Herbert	4·90	11	20	2·28	25	Thunder storm 13.
Saltcoats	2·70	10	21	0·61	28	
Lacombe	3·62	10	21	1·75	24	Thunder storm 13, 24.
Hanley	1·69	5	26	0·61	25	
Coutts	1·68	5	26	0·52	7	
Dundurn	1·35	3	28	0·58	11	
Stirling	2·93	6	25	0·94	26	
Last Mountain	1·13	5	26	0·35	16	Thunder storm 2, 16, 18.
Bruederheim	4·11	12	19	1·18	24	Thunder 9, 14, 17, 23, 24, 28.
Magrath	3·27	4	27	1·00	29	
Regina	2·97	8	19	0·85	4	Thunder 4, 14, 27, 31.
Innisfail	1·54	10	19	0·71	22	
Insinger	1·03	7	24	0·25	8	
Dirt Hills	7·23	11	20	2·54	4	
Arlington Beach	1·72	5	26	0·51	21	
Beaver Hills, W	5.14	15	16	2·07	23	Thunder 2, 6, 9, 10, 11, 12, 13, 17, 21, 23, 27, 28.
MANITOBA—						
Norquay	3·49	7	22	1·49	15	1·15 fell on 18th in 15 minutes.
Gretna	0·69	3	25	0·60	15	
Deloraine	1·70	6	25	0·40	14	
Rapid City	1·67	9	19	0·60	14	
Cartwright	2·51	5	26	0·84	26	
Belmont	2·37	11	20	0·65	14	
Rosebank	4·11	8	23	2·58	14	
Beaver	2·40	7	21	0·82	2	
ONTARIO—						
Aurora	2·83	12	19	1·27	12	
Watford	3·75	10	21	0·86	12	
Midland	3·61	12	19	0·87	7	
Bonfield	2·80	12	19	0·93	19	
Nasbonsing Lake	2·82	12	19	1.02	19	
Turtle Dam	3·62	13	18	0·75	24	
White Fish pound	4·00	13	18	0·90	4	
Britannia Bay	5·03	18	13	1·30	29	
Arnprior	6·71	14	17	2·48	30	
Fitzroy Harbour	4·64	11	20	1·00	30	
Gower Point	4·09	9	22	1·22	30	
N. Williamsburg	5·08	9	22	0·83	12	
Ensdale	4·72	15	16	1·30	13	
Sydenham	4·87	6	25	2·12	29	
Westport	4·57	13	18	1·40	30	
Smiths Falls	4·70	7	24	2·83	30	
Croydon	4·10	6	25	2·00	29	
Georgetown	3·52	14	14	0·82	12	Aurora 5·27.
Scarboro	3·62	10	20	0.89	30	
Montague	5·00	8	23	2·23	29	
Lansdowne	4·68	8	23	2·67	29	
Arden	5·37	16	15	2·03	30	
Parma	3·64	9	22	1·22	30	
MacCue	4·40	12	19	2·35	30	
Goderich	2·60	5	26	0·80	12	
Huntsville	5·15	16	15	2·00	12	
Wooler	3·42	8	23	0·96	12	
Wyoming	4·20	9	22	0·95	9	
Jermyn	0·82	5	25	0·26	29	
Ursa	4·80	17	14	1·00	8	
Dutton	0·94	4	27	0·30	11	
Westminster	1·96	9	22	0·42	12	
Princeton	3·04	9	22	1·48	12	
Ennismore	0·70	3	28	0·53	12	
Orangeville	2·39	10	21	0·75	12	
Penice	2·31	12	18	0·10	4	
Lake Talon	2·24	11	20	0·41	5	
Wiarton	2·89	10	21	0·91	18	Thunder 4, 7, 11, 12, 16, 18.
Lions Head	1·93	10	21	0·45	17	Thunder 17, 19, 23.
Deer Park	1·78	9	22	2·06	29	Thunder 23, 29.
QUEBEC—						
Bryson	4·48	11	20	0·70	23	
NEW BRUNSWICK—						
Point Escuminac	1·70	6	25	0·79	2	
NOVA SCOTIA—						
Port Morien	0·55	3	28	0·45	25	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JULY, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	0·38	0·62	0·77	0·84	0·86	0·87	0·85	0·88	0·86	0·84	0·86	0·88	0·73	0·45	.....
Nanaimo	0·09	0·37	0·54	0·63	0·70	0·69	0·73	0·75	0·73	0·71	0·73	0·69	0·71	0·73	0·64	0·04
Agassiz	.....	0·00	0·21	0·64	0·67	0·70	0·74	0·84	0·76	0·74	0·73	0·65	0·56	0·50	0·23	.....
Battleford	0·07	0·40	0·43	0·50	0·55	0·54	0·64	0·54	0·59	0·47	0·32	0·36	0·43	0·27	0·27	0·11
Indian Head	.....	0·23	0·64	0·73	0·74	0·72	0·75	0·72	0·74	0·65	0·60	0·68	0·57	0·57	0·22	.....
Brandon	.....	0·06	0·56	0·81	0·85	0·85	0·85	0·82	0·80	0·79	0·74	0·69	0·73	0·59	0·40	0·04
Winnipeg	0·14	0·53	0·73	0·75	0·83	0·86	0·87	0·84	0·89	0·89	0·90	0·78	0·81	0·73	0·50	0·06
Woodstock	.....	0·12	0·43	0·57	0·58	0·59	0·64	0·66	0·67	0·62	0·70	0·67	0·62	0·57	0·31	0·02
Toronto	.....	0·15	0·50	0·61	0·68	0·68	0·71	0·68	0·71	0·70	0·64	0·65	0·67	0·63	0·53	0·03
Lindsay	.....	0·16	0·32	0·43	0·54	0·61	0·59	0·62	0·64	0·66	0·62	0·57	0·50	0·46	0·38	0·11
Gravenhurst	.....	0·37	0·53	0·60	0·60	0·68	0·69	0·68	0·64	0·61	0·64	0·67	0·65	0·69	0·63	0·25
Kingston	0·01	0·17	0·42	0·53	0·61	0·62	0·66	0·65	0·65	0·65	0·66	0·64	0·61	0·62	0·48	0·05
Ottawa	.....	0·05	0·26	0·32	0·41	0·51	0·61	0·61	0·66	0·66	0·58	0·53	0·55	0·57	0·28	.....
Montreal	.....	0·05	0·23	0·47	0·48	0·51	0·52	0·51	0·54	0·53	0·55	0·55	0·52	0·48	0·20	.....
Quebec	.....	0·22	0·41	0·43	0·56	0·57	0·61	0·66	0·59	0·60	0·60	0·59	0·61	0·45	0·31	.....
Fredericton	0·01	0·30	0·41	0·49	0·58	0·67	0·73	0·78	0·77	0·79	0·61	0·63	0·67	0·62	0·46	0·11

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month. (*Constant sunshine being 1.*)	0·68	0·60	0·51	0·41	0·54	0·61	0·68	0·51	0·57	0·47	0·59	0·53	0·41	0·46	0·47	0·57
Difference from average	+0·12	—	+0·04	−0·15	−0·01	+0·05	+0·10	−0·05	−0·04	−0·09	—	−0·04	−0·11	−0·12	—	−0·06
Maximum daily amount	0·87	0·94	0·81	0·91	0·84	0·81	0·94	0·92	0·91	0·88	0·95	0·94	0·91	0·90	0·90	0·90
Date	24	23	19	19	19	21	1	25	21	27	25	22	21	21	22	21
No. of days completely clouded	1	4	2	0	2	0	1	4	2	2	0	6	3	4	2	3

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Threehills Creek, IV.

4. St. John, IV.

5. Lucknow, IV ; Georgetown, IV ; Charlottetown, IV.

6. Kenora, IV ; Charlottetown, IV.

7. Gravenhurst, IV ; Minnedosa, II.

8. Aweme, IV ; Kenora, III ; Rapid City.

20. Emsdale, III.

23. Aweme, II ; Kenora, IV ; Port Stanley, III.

24. Vancouver, III.

26. Toronto, IV.

27. Aweme, IV ; Madoc, II ; Georgetown, IV ; Fredericton, IV ; Gravenhurst, II ; Emsdale.

28. Kenora, IV ; Cartwright, Gravenhurst, IV.

29. Cape Chatte, II.

Thunder recorded on :

1. Stony Creek, Brome, Cape Chatte, Hillview, Moose Jaw, Foxleigh, Hillsdown, Chaplin, Estevan, Bon Accord, Threehills Creek, Gray Hill, Big Creek, Nelson, Tobacco Plains, Deloraine, Rapid City, Prince Albert, Quebec.

2. Fredericton, Hillview, Moose Jaw, Chaplin, Bon Accord, Threehills Creek, Regina, Gleichen, Big Creek, Nelson, Golden, Tobacco Plains, Wyoming, Deloraine, Beaver Hill W, Rapid City, Last Mountain, Minnedosa.

3. Paris, Port Dover, Brantford, Birnam, Moose Jaw, Foxleigh, Chaplin, Threehills Creek, Gleichen, Nelson, Cowichan, Thetis Island, Alberni, Tobacco Plains, Westminister, Princeton, Deloraine, Rapid City, Regina, Calgary, Swift Current, Port Stanley, London, Nanaimo.

4. Gravenhurst, N. Bruce, Bruce Mines, Cockburn Island, Kinmount, Agincourt, Clontarf, Paris, Port Hope, Brantford, Beatrice, Haliburton, Gatesgarth, Moose Jaw, Grenfell, Foxleigh, Chaplin, Midland, Gower Point, Georgetown, Scarboro, Wooler, Ursa, Rapid City, White River, Swift Current, Winnipeg, Saugeen, Port Stanley, Bermuda, London, Lindsay, Wiarton, Uplands.

5. Gravenhurst, Bala, Agincourt, Cockburn Island, Meaford, Beatrice, Oakbank, Hillsdown, Regina, Arden, Calgary, Swift Current, Winnipeg, Toronto, Parry Sound.

6. Gravenhurst, Point Clark, Bala, Meaford, Agincourt, Beatrice, Owen Sound, Haliburton, Gatesgarth, Hillsdown, Estevan, Bon Accord, Threehills Creek, Gleichen, Emsdale.

7. Gravenhurst, Point Clark, Lucknow, N. Bruce, Bala, Agincourt, Kinmount, Meaford, Bancroft, Paris, Brantford, Beatrice, Owen Sound, Birnam, Haliburton, Gleichen, Midland, Gower Point, Emsdale, Scarboro', Huntsville, Wooler, Wyoming, Ursa, Battleford, Medicine Hat, Quebec, Rockliffe, Toronto, Parry Sound, Wiarton.

8. Gravenhurst, Point Clark, Bala, Agincourt, Kinmount, Birnam, Haliburton, Brome, Perce, Aurora, Georgetown, Arden, Wyoming, Rapid City, Ottawa, Quebec, London.

9. Point Clark, Agincourt, North Gower, Chicoutimi, Perce, Wataskiwin, Chaplin, Bon Accord, Wyoming, Bruederheim, Beaver Hills W., Prince Albert, Quebec.

10. Point Clark, Parrsboro', Pincher Creek, Foxleigh, Hillsdown, Bon Accord, Threehills Creek, Gray Hill, Battleford.

11. Madoc, Lucknow, N. Bruce, Oakbank, Moose Jaw, Regina, Smith's Falls, Wyoming, Beaver Hills W., Swift Current, Battleford, Medicine Hat, London, Wiarton.

12. Vancouver, Point Clark, Madoc, Lucknow, N. Bruce, Kenora, Meaford, Paris, Port Dover, Brantford, Birnam, Haliburton, Shawinigan Falls, Knee Hill, Regina, Thetis Island, Princeton, B.C., Wooler, Arnprior, Princeton, Gretna, Rosebank, Stony Mountain, Montreal, Ottawa, Quebec, Rockliffe, London, Wiarton.

13. Gravenhurst, Madoc, N. Bruce, Stony Creek, Kinmount, Bancroft, Agincourt, Haliburton, Brome, Wetaskiwin, Gatesgarth, Moose Jaw, Knee Hill, Heward, Hillsdown, Bon Accord, Threehills

Creek, Lacombe. Beaver Hills, W., N. Westminister, Calgary, Banff, Swift Current, Medicine Hat, Ottawa, Rockliffe. Toronto, Parry Sound, London, Lindsay, Nelson, Ladner, Aurora, Georgetown, Wyoming, Lake Talon.

14. Gravenhurst, Fredericton, Lucknow, N. Bruce, Bala, Agincourt, Beatrice, Haliburton, Brome, Shawinigan Falls, Brandon. Oakbank. Hillview, Gatesgarth, Moose Jaw, Chaplin, Bon Accord, Regina, Scarboro, Huntsville, Wyoming, Deloraine, Rapid City, Belmont, Rosebank, Regina, Swift Current, Medicine Hat, Minnedosa, Winnipeg, Quebec. Port Stanley, Grand Manan, Lindsay, Almasippi.

15. Kenora, Savanne, Haliburton, Turtle Mountain. Pincher Creek, Big Creek, Tobacco Plains, Princeton, B.C., Rapid City, Port Arthur, Minnedosa, Montreal. Halifax, St. John, Charlottetown, Grand Manan.

16. N. Bruce, Bruce Mines, Agincourt, Beatrice, Owen Sound, Wol ville, Gatesgarth, Moose Jaw, Arnprior. Emsdale, Westport, Arden, Last Mountain. Port Arthur. Banff, White River, Swift Current, Montreal, Rockliffe, Wiarton, Lions Head.

17. Point Clark, Collingwood, N. Bruce, Bala. Kenora, Kinmount, Meaford, Summerside, Brome, Brandon, Turtle Mountain. Morden, Hillview, Aweme, Gatesgarth, Moose Jaw, Knee Hill, Foxleigh, Bon Accord, Threehills Creek. Indian Head, Midland. Emsdale, Gretna. Rapid City, Belmont, Prince Albert, Minnedosa, Winnipeg, Ottawa, Saugeen. Toronto. Parry Sound, Lindsay. Almasippi.

18. Point Clark. N. Bruce, Kenora, Kinmount, Clontarf, Summerside, Brome, Smiths Falls, Last Mountain, Stony Mountain, St. John, Father Point. Wiarton.

19. Gravenhurst, Fredericton, Lucknow. Collingwood, N. Bruce. Bala, Agincourt. Meaford. Bancroft, Clontarf, Port Dover. Beatrice, Owen Sound. Haliburton. Brome, Chicoutimi, Gray Hill, Arden, Arnprior, Westport, Croydon. Huntsville, Wyoming, Ursa, Point Escuminac, Montreal, Saugeen, Quebec, St. John, Parry Sound, Yarmouth. London, Lindsay. Lions Head. Uplands.

20. Moose Jaw. Hillsdown, Chaplin, Bon Accord. Dundurn, Naas Harbour. Port Simpson, Sydney, Bermuda, Charlottetown. Yarmouth.

21. Aweme, Moose Jaw, Pekisko, Hillsdown. Bon Accord. Threehills Creek, Gray Hill. Regina, Nelson, Nickle Plate, Princeton, B.C., Rapid City, Belmont. Minnedosa. Bermuda.

22. Kenora. Bon Accord, Nelson. Tobacco Plains. Calgary, Port Arthur, Medicine Hat.

23. Lucknow, N. Bruce, Kinmount. Meaford, Agincourt, Clontarf, Brantford, Haliburton, Abitibi, Wetaskiwin, Pincher Creek. Hillsdown, Bon Accord, Gray Hill. Arnprior, Georgetown, Huntsville. Bruederheim, Beaver Hills W., Rockliffe, Toronto, Lions Head. Uplands.

24. Agincourt, Shawinigan Falls. Wetaskiwin, Knee Hill, Pincher Creek, Hillsdown, Threehills Creek, Lacombe. Bruederheim, Calgary. Medicine Hat, Montreal, Quebec. Uplands.

25. Knee Hill, Pincher Creek, Big Creek, Nelson, Nickle Plate, N. Nicomin, Emsdale. Croydon, Swift Current.

26. Moncton, Channel Island, Gatesgarth, Pincher Creek, Foxleigh, Chaplin, Nickle Plate. N. Nicomin, Princeton, Gower Point. Westport, Royal Oak. White River. Swift Current, Battleford. Medicine Hat, Rockliffe, Kingston, Charlottetown, Coquitlam.

27. Vancouver, Fredericton, Madoc. Agincourt, Wolfville. Brome, Channel Island, Knee Hill, Pincher Creek, Hillsdown. St. Peters, Chaplin, Gray Hill, Regina, Rossland, Cowichan, Thetis Island, Spence's Bridge, Nicola Lake, Westport, Arden. Wyoming, Rapid City, Regina, New Westminister, Swift Current, Minnedosa, Montreal. Quebec, St. John. Charlottetown. Chilliwack, Nanaimo, Coquitlam.

28. Vancouver, Fredericton, Port Dover, Foxleigh. Bon Accord, Regina, Gleichen, Golden, Princeton. B.C., Nicola Lake, Bruderheim. New Westminister, Sydney, Port Burwell, Almasippi.

29. Kenora, Agincourt, Birnam, Moncton, Channel Island. Oakbank, Turtle Mountain, Hillview, Gatesgarth, Hillsdown, Estevan, Gray Hill, Indian Head, Nicola Lake, Westport, Georgetown, Wyoming, Rapid City, Belmont, Medicine Hat, Minnedosa. Winnipeg. Port Burwell.

30. Pincher Creek, Golden, Princeton, B.C., Scarboro', Battleford, Toronto.

31. Cockburn Island, Brantford, Gatesgarth. Moose Jaw, Chaplin, Alberni, Princeton. B.C., Scarboro', Westminister, Regina, Swift Current, Medicine Hat, Port Stanley.

FORECASTS FOR JULY, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1097. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	89	63	18	8	77·5
Lake Superior	110	64	35	11	75·0
Lower Lake Region	124	100	22	2	89·5
Georgian Bay	125	102	21	2	90·0
Ottawa Valley	108	88	16	4	88·9
Upper St. Lawrence	108	90	15	3	90·3
Lower St. Lawrence	103	85	18	5	87·0
Gulf	107	80	21	6	84·6
Maritime Provinces, West	109	87	22	0	89·9
Maritime Provinces, East	109	93	13	3	91·3
Total	1097	852	201	44	86·8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th August, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. AUGUST, 1905. No. 8.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather in British Columbia did not depart much from the normal excepting at Tobacco Plains in East Kootenay where it was unusually warm. In most districts on the contrary it was somewhat cool and wet. Rain occurred frequently during the first and third week, also during the last three days of the month ; and the proportion of bright sunshine was below the average. The condition of vegetation was normal. Frosts were reported from northern districts late in the month.

In Alberta and Saskatchewan the weather was exceedingly warm whilst the rainfall varied considerably in contiguous districts. From the 6th to 11th and 22nd to 29th there was much fine weather, rain occuring somewhat frequently during the intervening periods. Temperatures below 38° were recorded at many places, in northern districts on or about the 24th and the nights were quite cool during the second half of the month. Some damage was caused by local hail storms but the condition of vegetation was excellent.

The weather in Manitoba was generally warm and dry, the mean temperature exceeding the average and the rainfall being deficient in most districts. Much bright sunshine prevailed from the 8th to 14th and 17th to 26th, the proportion for the month being in excess of the average. Heavy rain was recorded on or about the 3rd, 7th and 26th, at may places. Reports regarding the condition of vegetation were favourable.

In Ontario the weather was somewhat cooler than usual at most places in the eastern portion of the Province, and slightly warmer than usual elsewhere. In northern and southwestern districts the rainfall was light, whilst in eastern and western counties it was excessive. Throughout the greater portion of the Province there was much bright sunshine and fine weather generally prevailed from the 1st to 5th, 8th to 11th, 16th to 18th and 22nd to 25th. Several heavy falls of rain occurred, causing some damage to grain crops, and on the 15th the rainfall, which was 3·68 in Toronto, 3·43 in Parma, and 3·53 at Georgetown, also very heavy at many other places, was the cause of the excessive total precipitation at some of these stations. Vegetation was green and luxuriant throughout the month.

In the Province of Quebec the weather was exceedingly dry but in other respects it did not depart much from the normal. Much bright sunshine occurred, more especially from the 3rd to 9th, 13th to 19th and 25th to 31st, when very little rain was recorded. At Quebec the temperature fell to 38° on the 1st and 39° on the 27th, and unusually cool nights were frequent throughout the Province. Owing to drought vegetation was somewhat withered.

The weather in New Brunswick was unusually fine and dry and in most districts the mean temperature was below the average. Precipitation was general upon several days during the first week, also on or about the 10th and 20th, and bright sunshine was frequent between these dates and after the 20th. Fogs were somewhat frequent on the coast during the first half of the month. Reports regarding the condition of vegetation were generally unfavourable.

In Nova Scotia the weather was quite cool, and though somewhat wet in Cape Breton it was generally dry elsewhere. From the 1st to 17th the sky was frequently overcast and rain and fog occurred on many dates, after which it became finer and although showers were recorded occasionally it continued so to the 31st. Heavy gales were reported on the 14th and 28th from Low Point and light frosts were also recorded at a few places.

The weather in Prince Edward Island was generally fine and dry. Rain was recorded at most places on or about the 2nd, 3rd 7th, 19th and 31st, the intervening periods being fair in most localities. High temperatures were general from the 3rd to 13th, also from the 18th to 25th but cool nights were frequent after the 12th. The condition of vegetation was fair.—F. F. Payne.

ATMOSPHERIC PRESSURE.

Subnormal values of the mean atmospheric pressure for August occurred throughout the greater portion of Canada; positive values being only experienced in British Columbia, locally in Ontario and over the greater portion of Quebec. Departures from average were small and ranged between + 0·05 of an inch at Victoria, B.C. and —0·11 of an inch at Prince Albert, Saskatchewan.

HIGH AREAS.

The high areas of August were as a rule unimportant, only a few maintaining their energy across the Continent. Some eight systems were sufficiently well marked to allow of their tracks being traced with some degree of accuracy. Among the most noteworthy were the following:

Area No. 1 moved into Ontario from the Hudson's Bay Region during the 1st, passed southeastward to the Middle Atlantic Coast where it hovered until near the 10th when it disappeared beyond the range of observation. No. 7 moved into Saskatchewan during the 22nd, and then it travelled to the Lake Region where it hovered for some three days, finally passing southward and off the Carolina coast on the 30th.

LOW AREAS.

There were numerous depressions during August, some eleven areas being sufficiently marked to allow of their paths being traced. One area moved into the Continent from the Atlantic Ocean, but the great majority were first observed in the west and northwest portions of the Continent. The mean path followed appears to have stretched from the Rocky Mountains, eastward and to the north of the Great Lake Region to the Gulf of St. Lawrence. A number of the systems were quite pronounced and strong winds were their frequent accompaniment. Gales were also occasionally recorded in several districts: that of the 29th which was very severe in some portions of the Maritime Provinces, accompanied the ocean disturbance; the latter giving the lowest barometric readings of the month.

WINDS.

In British Columbia over Vancouver Island and on the Mainland the direction was chiefly southerly to westerly, with three days of strong and twenty-two of fresh breezes, besides two gales.

In the North-West Territories the direction was largely variable, favouring somewhat the south and west. There were nine days with strong and twelve with fresh breezes and one gale.

In Manitoba the south and west directions was fairly general, but there were many days of variable winds. On eleven occasions the winds were strong, on ten fresh, and there was one marked gale.

In the Lake Region the south and west direction predominated with six days of strong and ten of fresh breezes. On one or two occasions the force of a gale was locally experienced, chiefly on the 14th on Lake Ontario from the eastward, and on the 20th on Lake Superior, from the westward.

In the Ottawa and Upper St. Lawrence Valleys the direction was in favour of the south and west, with three days of strong and sixteen of fresh breezes.

In the Lower St. Lawrence Valley and the Gulf the westerly direction was perhaps the most general, but no one direction was especially marked. There were nine days with strong and fourteen with fresh breezes, and two gales, the latter occurring on the 24th and 29th, both being somewhat local.

In the Maritime Provinces the south and west directions were the most in evidence with three days of strong and ten of fresh breezes, besides a gale between the 28th and 29th. The gale was severely felt over Cape Breton and Prince Edward Island, but it did not extend into the western portion of the Maritime Provinces.

As to storm warnings, signals were not hoisted on Lake Ontario for the storm of the 14th, and two warnings issued to River St. Lawrence and Bays of Chaleur and Fundy were only partially verified.

BRIGHT SUNSHINE.

The mean proportion of Bright Sunshine for August was less than the average amount over British Columbia, while the normal value was exceeded throughout all the other districts in Canada. The departure from normal ranged between —6% at Agassiz, B.C., and +12% at Indian Head, Saskatchewan.

TEMPERATURE.

The temperature was above the average was from Alberta eastward to line drawn northward and southward from the western portion of Lake Ontario, and below the average over British Columbia and from Eastern Ontario to the Maritime Provinces, if we except one or two isolated cases in the latter Provinces, where a slight excess was experienced. The most marked positive departures occurred in parts of Alberta, Saskatchewan and Manitoba, and they were from 3 to 4 degrees, and the chief negative departure was reported from British Columbia, in Cariboo, and amounted to 5 degrees.

The highest and Lowest temperatures in each Province during July, 1905, were :

British Columbia,	100° ·0 on 26th at Bella Coola,	27° ·0 on 22nd at Big Creek.
N. W. Territories,	95° ·0 on 8th at Medicine Hat,	27° ·0 on 27th at Knee Hill.
Manitoba,	91° ·5 on 25th at Aweme,	24° ·0 on 29th at Virden.
Ontario,	94° ·0 on 10th at Stony Creek,	29° ·0 on 1st at Savanne.
Quebec,	89° ·9 on 13th at Chicoutimi,	34° ·3 on 27th at Chicoutimi.
New Brunswick,	91° ·0 on 12th at Chatham,	31° ·0 on 15th at Sussex.
Nova Scotia,	86° ·0 on 12th at Sydney,	36° ·0 on 14th at Parrsboro'.
Prince Edward Island,	86° ·5 on 12th at Charlottetown.	45° ·0 on 13th at Summerside.

PRECIPITATION.

The rainfall was above the average in most parts of British Columbia, but only moderately so, the positive departures being about six-tenths of an inch. In the Lower Lake Region and in the Georgian Bay district it was likewise in many localities above the average, the positive departures being specially marked over Lake Ontario and for some distance surrounding that Lake. Stony Creek was 1·48 inch above the average ; Toronto, 1·60 inch above ; Kingston, 3·4 inches above ; Halliburton, 1.34 inch above ; Sarnia, 1·67 inch above ; Georgetown, 2·53 inches above. Elsewhere over the Dominion with the exception of a marked excess at Prince Albert and vicinity, also in Cape Breton and to a small extent in the Qu'Appelle Valley the rainfall was everywhere deficient and usually to a large amount. In Quebec, also over the Maritime Provinces, with the exception of Cape Breton the absence of rain was attended by serious droughts, causing considerable destruction of property by forest fires. In many parts of Alberta, Saskatchewan and Manitoba the rainfall was likewise very deficient. The chief negative departures were Calgary, 2·0 inches ; Battleford, 1·30 inch ; Swift Current, 1·70 inch ; Winnipeg, 1·10 inch ; Port Arthur, 1·40 inch ; Montreal, 1·30 inch ; Quebec, 2·60 inches ; Father Point, 2·80 inches ; Halifax, 1·70 inches ; Charlottetown, 1·31 inch. Under the existing conditions positive departures of 5·30 inches at Prince Albert, and of 2·46 inches at Sydney, C.B., 3.48 at Port Hastings were remarkable.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'th	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with ·01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°																								
BRITISH COLUMBIA—																																									
Victoria	48 24	123 19	85	30·03	30·32	29·83	0·49	59·4	− 0·5	11	78·1	8	46·9	25	13·0			4	1	14	5	15	27	89	359	128	10	97	744	8·9	16·7	21 SW	1·21	+ 0·65	0·16	7	4	0	0	0
Barkerville	53 2	121 35	4180																																					
Agassiz	49 14	121 31	52					62·2	0·0	16	83·0	10	40·0	28	26·9					15	0	0	0	51	0	27	0	0	93				2·80	+ 0·55	0·83	7	21	0	0	0
Port Simpson	54 34	130 26	26																																					
Revelstoke	51 0	118 6	1476					61·8			91·0	8	12·0	20	25·6																		1·13		0·36	8	11	0	1	0
Kamloops	50 41	120 29	1193	29·86	30·12	29·68	0·41	69 2	+ 0·8	12	98·3	6	15·8	15	26·9			4	1	1	0	1	3	12	3	3	1	38	62		25·0	28 SE	1·61	− 0·67	1·32	4	26	0	1	0
Princeton	49 29	120 29	1650					61·7	− 2·0		95·0	6	31·0	26	33·4																		0·95	+ 0·37	0·68	7	21	0	2	0
Pilot Bay	49 39	116 55	2000																																					
Rivers Inlet	51 39	127 49	20	30·05	30·34	29·81	0·53	56·9	− 2·0	12	71·1	7	42·3	30	11·9			7	12	0	0	2	4	0	2	19	0	66	93	1	111	9 W	8·10	+ 3·91	1·85	21	10	0	1	6
Stuart's Lake	54 28	124 12	1800					53·5	+ 0·4	12	82·0	6	28·2	23	28·7																		2·96	+ 2·16	0·45	17	14	0	0	0
Coldstream	50 11	119 15	1216																																					
a Nanaimo	49 10	123 57		29·92	30·21	29·71	0·50	61·2			85·0	7	42·0	30	19·8	60·6	79	4	2	0	8	13	10	3	0	7	16	36	93	3·1	8·3	7 NW	1·60		0·77	8	23	0	1	0
Chilliwack	49 10	121 57	21	30·01	30·35	29·86	0·49	62·4	—		86·6	7	40·0	25	20·1	56·9	81	5	6	0	1	12	12	32	30	5	1	0	93				3·09	—	1·03	8	23	0	1	0
Port Bobs	50 32	128 3																																						
Midway	49 0	118 46	1800																																					
Enderby	50 32	119 7	1180																																					
Nicola Lake	50 9	120 39	2120					61·4	− 0·5	10	87·0	7	38·0	27	24·4																									
West Kootenay	49 20	117 50																															0·21	− 0·36	0·10	1	27	0	0	0
Garry Point	49 21	123 47						58·9	0·6	10	80·0	8	38·0	25	18·9																									
Tobacco Plains	49 1	115 5	2681					67·5	+ 4·7	10	91·1	8	42·0	16	30·8																									
a Vancouver	49 17	123 5		29·91	30·20	29·69	0·51	60·9			80·0	6	40·7	26	20·0			5	6	0	3	13	8	1	10	1	0	26	62	11	V	31 E	2·19		1·18	1	12	1	3	0
New Westminster	49 13	122 54	330	30·03	30·34	29·86	0·48	61·6	1·6	12	83·1	7	42·2	25	19·8			4	6	0	2	20	0	5	20	3	1	11	62		7·0	11 SW	1·61	0·46	0·90	6	21	0	0	0
Ladner	49 5	123 4						60·0			84·5	7	35·0	21	28·9																		1·82		1·22	5	26	0	1	2
North Nicomen	49 12	122 2	59					63·2	− 0·8	13	89·0	8	44·0	25	20·6																		1·48	+ 2·72	1·28	9	22	0	1	0
Quesnelle	52 59	122 30	1700					60·5	− 0·2	11	89·0	8	35·0	22	28·1																		2·46	+ 1·11	1·11	7	19	0	1	0
Clayoquot	49 11	125 47	10					59·5	—		72·0	8	40·0	30	19·8																		1·19		0·82	10	21	0	0	1
Cranbrook	49 30	115 50	2900																																					
Massett	53 58	132 9	30					60·7	—		82·0	2	44·0	30	19·7					1	3	0	31	1	5	13	5	0	62				8·35		1·30	21	10	0	0	0
Bullion	52 45	121 55	2775																																					
Bella Coola	52 40	126 51	150					66·7			100·0	26	18·0	3	30·8																									
Cowichan	48 25	123 42	170					60·3	—		84·7	6	39·1	31	21·9																		0·38	1·27	0·12	1	27	0	0	0
Nelson	49 29	117 21	1760					65·6	—		94·0	8	43·0	23	29·7																		1·17		0·48	7	21	0	0	0
Matsqui	49 7	122 16																															0·63	—	0·19	8	23	0	2	0
Okanagan Mission	49 52	119 29	1200					66·8			93·8	8	39·0	27	29·4																									
Alberni	49 15	124 49						63·5	− 1·8	10	95·2	8	35·0	27	27·5																									
Kuper Island	48 54	123 38	40																														1·23	+ 0·33	0·33	10	20	0	1	0
Cape Scott	50 48	128 27						55·7			86·7	7	42·0	25	9·8																									
Glacier	51 41	117 29	4072																														6·80	—	1·84	20	10	0	0	0
Golden	51 16	116 55	2550					—	—		85·0	3	32·0	27	—																									
Spence's Bridge	50 25	121 30	760																														0·19		0·09	4	26	0	0	0
Bamfield	48 50	125 9		30·01	30·18	29·91	0·27	59·0	—		71·5	21	46·3	31	18·5	56·1	82	3	3	0	0	0	6	2	0	31	6	48	93				1·54	—	1·51	2	28	0	0	8
Big Creek	51 10	123 0						55·0	—		85·0	7	27·0	22																									
Nickel Plate	49 30	120 0	5400					52·9			79·6	6	31·0	31																			1·17	—	0·60	8	23	0	1	0
Thetis Island	49 0	123 40									80·6	6																					0·94	—	0·49	7	21	0	2	0
Hedley								—	—		91·0	11	42·0	22	—																		0·97	—	0·39	8	23	0	2	0
Kitamaat	53 59	128 42						56·6			85·0	1	41·0	26																			0·86	—	0·72	6	25	0	2	0
Rossland	49 5	117 48	3100					61·7	—		87·8	8	38·8	31	26·0																		9·46	—	2·75	23	8	0	0	0
*Port Essington	54 9	129 55	10					58·3	—		84·0	6	18·0	28																			0·46		0·24	6	25	0	3	0
N. W. TERRITORIES																																	11·19		2·15	17	14	0	0	0
Medicine Hat	50 1	110 37	2161	29·83	30·12	29·50	0·62	69·6	+ 3·8	21	95·0	8	41·7	29	30·6			4	1	0	0	6	1	6	4	11	5	26	62				0·74	0·79	0·42	2	29	0	2	1
Edmonton	53 33	113 30	2158																																					
Swift Current	50 20	107 45	2139	29·86	30·12	29·52	0·60	67·3	+ 3·6	19	91·0	25	40·0	21	29·2			3	0	4	8	5	1	8	1	14	4	1	62		18·7	30 E	0·14	− 1·69	0·01	5	25	0	0	0
Qu'Appelle	50 30	103 47	2115	29·85	30·15	29·50	0·65	64·8	+ 3·2	22	88·0	25	41·1	21	24·9			5	0	3	2	3	4	15	17	13	11	4	62		23·0	20 W	2·24	+ 0·49	1·18	7	22	2	4	0
Calgary	51 2	114 2	3389	29·86	30·10	29·56	0·54	59·9	+ 1·0	21	86·0	6	33·0	27	32·0			4	0	1	5	6	7	0	6	13	16	8	62		18·0	31 W	0·69	− 1·90	0·33	6	23	0	0	0
Prince Albert	53 10	106 0	1132	29·79	30·12	29·48	0·64	62·3	+ 3·6	20	83·0	6	41·5	30	22·4			6	7	4	0	5	3	3	6	6	12	23	62				7·49	+ 5·42	1·72	13	18	1	5	3
Battleford	52 41	108 20	1620	29·87	30·16	29·56	0·60	63·8	+ 1·9	14	86·0	6	38·0	22	25·5			5	0	43	16	171	24	21	31	172	80	183	744	5·2	25·3	20 W	0·79	1·33	0·22	7	19	5	3	5

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure.				Temperature.								Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from									Velocity of wind.			Precipitation.				Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
				Mean reduced.	Highest.	Lowest.	Range.	Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.					N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Highest day's velocity.	Date and direction from.	Amount.	Difference from average.	Heaviest fall in month.					
ONTARIO *Con.*	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°																							
Brantford	43 10	80 21	750					67·4	0·0	21	92·0	10	43·0	1	24·3																							
Parry Sound	45 19	80 0	635	29·98	30·33	29·57	0·76	66·7	+ 2·8	29	89·0	5	46·0	17	21·5					4	1	96	94	21	110	40	212	118	34	19	744	7·2			2·39	−0 42	0·96	7	21	1	4	0
Owen Sound	44 31	80 55	597					66·1	+ 1·0	26	88·0	11	41·0	2	24·7							5	8	2	6	29	10	6	13	14	93				1·99	−1 68	0·88	4	27	0	3	0
Beatrice	45 8	79 20	806					62·2	+ 0·5	28	82·0	11	40·0	17	23·6			3	1	6	6	0	11	5	7	2	11	48	93	1	III	19 SE	2·79	−0 61	0·80	10	21	0	5	0
Coldwater	44 38	79 10	600																																			
Gravenhurst	44 51	79 20	770					63·7	− 0·4	31	85·0	12	40·0	17	24·0			3	0	19	2	12	9	17	6	9	6	13	93	11	V	19 SE	4·12	+0·90	1·60	7	23	3	3	0
Haliburton	45 1	78 28						61·2	− 1·7	18	85·0	12	36·0	1	27·6																							
*Point Clark	44 5	81 11	595					68·0	+ 1·9	35	93·0	22	49·0	24	—			3	0	10	2	3	0	35	0	9	1	0	93	IV	VII	30 N	3·39	+1 27	1·15	5	26	0	5	1
Birnam	43 2	81 55	600					67·1	+ 1·2	22	85·0	10	43·0	2	18·1					19	1	2	1	9	11	3	10	6	93				2·52	+0·11	1·33	7	21	1	5	3
London	42 59	81 13	808	29·96	30·20	29·51	0·69	66·6	0·2	22	88·0	10	42·0	3	23·2	61·5	75	3	1	6	7	1	5	8	37	12	17	0	93	1	III	30 SW	3·01	+0·57	1·75	8	17	0	6	0
Port Stanley	42 40	81 13	592	29·98	30·21	29 58	0·63	68·3	+ 1·3	31	85·2	30	15·0	3	—			4	4	6	8	2	12	2	8	10	9	5	62	.....	20·0	30 SW	2·26	−0·16	1·33	9	22	0	4	0
Woodstock	43 8	80 47	980	29·96	30·20	29·51	0·66	66·3	+ 0·7	30	86·5	10	43·0	3	21·6	59·1	80	4	3	16	21	11	20	10	39	27	25	14	186	8·9	16·5	15 NE	2·89	+0·27	1·51	9	22	0	0	0
Port Dover	42 17	80 13	635					67·0	+ 2·4	28	83·3	10	19·1	17	16·5																				2·42	+0·18	1·65	11	20	0	3	0
Pelee Island	41 50	82 38	585					72·5	0·6	23	81·0	30	60·0	1	8·3																				0·9		0·31	5	26	0	0	0
Paris	43 12	80 25	810					65·7	− 1·3	16	90·0	10	39·0	2	31·3																				1·74	−1 31	0·5	7	24	0	4	0
Bancroft	45 1	77 50						60·8	0·0	10	82·0	11	39·5	17	24·3																				3·10	0·38	1·13	8	23	0	4	0
Calvin	46 15	78 18																																				
Agincourt	43 47	79 16						66·4	− 0·3	10	90·0	11	46·5	3	22·4																				3·31	+1 81	2 47	5	26	0	5	0
Hamilton	43 16	79 51	103																																			
Port Hope	43 56	78 20						—	—	10	85·0	10	46·0	2	—																							
Kinmount	44 45	78 38						61·8	—	8	87·0	12	32·0	26	28·6																				2·82	—	1·37	8	23	0	3	2
Cockburn Island	45 57	83 18	610					64·2	—	7	85·0	12	42·0	3	19·4							3	4	3	11	6	7	12	7	6	62				2·25	—	0·83	7	24	2	3	5
Chatham	42 23	82 12	595					70·7	+ 0·8	20	91·0	12	52·0	27	21·3																				1·54	−0·56	0·91	4	27	0	0	0
Meaford	44 37	80 37						65·4	—	7	87·0	13	41·0	2	17·0							23	2	3	0	7	13	13	1	0	62				1·24	—	0·38	6	25	1	4	0
Listowel	43 44	80 58						65·0	—	9	84·0	12	36·0	1	24·1																				3·50	—	2·0	6	25	0	0	0
Bruce Mines	46 18	83 55	595					64·4	—	7	82·0	12	38·0	3	22·1																				2·14	—	1·46	6	75	0	3	0
Rat Portage (Kenora)	49 48	94 32	1102					64·4	—	6	78·3	3	41·0	1	18·6																				1·18	—	1·36	6	25	0	6	0
Sturgeon Falls	46 16	79 54																																				
Uplands	45 48	79 25						61·1	+ 0·6	20	85·0	11	31·5	2	32·8							3	0	1	1	2	5	12	7	0	31				1·96	1·01	0·68	7	24	0	4	0
Toronto	43 40	79 24	350	29·98	30·21	29 62	0·59	67·5	+ 1·1	61	88·8	10	48·9	17	19·8			5	3	72	42	54	40	186	114	117	102	17	744	8·0	19·0	15 NE	4·22	+1·44	3·68	5	22	1	5	1
Welland	42 59	79 17	125					67·9	+ 0·2	17	89·0	10	46·0	28	20·5																				1·68	−0·75	0·53	7	24	0	0	0
Peterborough	44 17	78 19	722					64·8	2·7	35	89·0	10	42·0	17	26·6																				3·38	+0·68	2·11	6	25	0	4	1
Lindsay	44 20	78 45	872	29·95	30·18	29 60	0·58	66·0	+ 1·5	4	89·7	10	43·8	3	22·9	58·8	76	5	4	10	1	1	9	12	10	6	9	32	93	1	III	30 SW	1·92	+2·36	2·36	9	10	0	7	1
Deseronto	44 11	77 4	261																																			
Lakefield	44 25	78 15						67·3	+ 0·8	2	88·0	11	47·0	17	21·5																				3·65	+1·30	1·10	10	21	0	5	0
Kingston	44 13	76 29	285	29·97	30·21	29·50	0·71	64·9	− 2·3	31	78·1	22	49·9	17	14·0			5	1	2	5	1	6	4	22	3	7	2	62	.....	15·0	20 E	5·94	+3·44	2·36	10	19	0	1	0
Clontarf	45 23	77 9						62·5	— 0·7	18	85·0	10	37·7	17	24·3			5	1																5·80	+2·15	2·33	12	19	0	7	0
Ottawa	45 26	75 42	291	29·93	30·2	29·56	0·61	66·6	+ 1·0	22	86·0	11	48·0	14	18·6			4	1	3	7	3	6	9	10	16	7	1	62	.....	III	16 E	3·10	+0·67	0·73	10	17	0	0	0
Rockliffe	46 9	78 6	557	29·96	30·26	29·5	0·71	63·0	− 0·2	28	85·0	11	41·0	11	25·1			6	4	3	1	1	1	1	3	2	5	42	62	.....	III	30 N	2·62	−1 10	0·58	11	20	0	2	3
*Sarnia	42 59	82 24	586					67·1	+ 0·6	11	91·0	11	40·0	17	—					15	0	1	2	16	1	4	2	49	93				3·80	+1·16	·80	4	27	0	1	1
Stratford	43 23	81 0	1191					66·3	+ 1·3	33	87·0	10	41·0	4	21·8																				2·7	−0·40	·44	4	27	0	0	0
Lucknow	43 56	81 30						65·0	− 0·8	20	84·0	12	37·6	2	22·8																				2·87	+0·17	0·92	7	23	3	5	2
White River	48 35	85 16	1252	29·93	30·27	29·54	0·73	58·0	+ 1·0	16	77·5	11	31·5	2	26·9			6	3	18	63	26	147	37	206	71	75	101	744	4·2	11·0	21 S	2·08	+0·92	0·79	14	17	0	3	0
Port Arthur	48 27	89 12	644	29·96	30·30	29·63	0·67	61·1	+ 1·8	25	79·0	12	33·0	1	21·2			5	1	38	142	72	97	22	72	68	137	96	741	3·1	.....	.....	1·3	−1 37	0·55	9	20	0	3	0
Stony Creek	43 13	79 45	292					69·5	+ 0·1	2	94·0	10	45·0	2	22·1			3	1	5	10	11	4	13	25	18	5	2	93	III	VII	15 NE	3·57	+1·18	1·05	7	24	0	1	1
*Otonabee	44 20	78 18	671					65·5	− 0·1	10	90·0	10	50·0	2	—					1	12	9	7	2	31	16	15	0	93				3·11	+1·19	1·81	7	24	0	0	2
Windsor	42 20	83 1	625					69·8	− 0·2	30	87·0	13	51·0	20	16·8																				4·35	+0·43	2·18	7	24	0	0	0
Alton	43 51	80 5	1250																																			
Guelph	43 33	80 16						66·3	+ 0·9	18	86·0	10	41·0	3	21·2			4	3	1	3	6	6	1	5	20	8	12	62	.....	.....	.....	1·99	−0·65	1·69	2	27	0	0	0
*North Bruce	44 23	81 25						65·1	+ 1·0	18	86·0	11	52·0	2	—					3	5	7	3	30	23	7	10	0	93	.....	.....	.....	3·39	+0·61	0·83	5	26	0	5	1
Collingwood	44 30	80 15	595					67·3	+ 2·3	13	84·0	10	48·0	17	15·1																				2·98	−0·12	0·72	6	25	0	3	0
Rockly n	44 28	80 36	1339																																			
Bala	45 0	79 30	740					65·1	+ 1·5	22	82·0	12	49·5	2	18·3																				3·91	+0·84	1·31	7	21	0	6	0
Orillia	44 31	79 24	775																																			
Saugeen	44 30	81 21	656	29·99	30·23	29·70	0·52	65·8	+ 0·7	29	84·0	11	42·6	2	19.1	.....	.....	4	1	11	3	2	0	19	14	1	8	4	62	.....	20·0	30 W	3·29	+0·95	2·26	6	23	3	2	1
St. Catharines	43 10	79 17																																				

| | | |

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING AUGUST, 1905.

STATION	RAINFALL					REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	
	in.			in.		
British Columbia—						
Naas Harbour	7·24	15	16	1·08	19	
Coquitlam	1·67	3	27	1·19	28	
Nanaimo	1·71	5	26	0·80	16	
Sooke Lake	1·43	7	24	0·58	29	
Royal Oak	1·16	5	26	0·60	28	
Goldstream Lake	1·53	7	24	0·82	28	
Somas River	1·17	7	24	0·39	11	
N. W. Territories—						
Dundurn	0·35	2	29	0·25	26	
Lacombe	1·51	6	25	0·61	31	
Last Mountain	1·78	5	26	0·35	11	Thunder 4, 16, 26.
Dirt Hills	1·18	3	28	1·30	2	" 2.
Regina	2·36	6	6	0·62	15	" 25, 27.
Innisfail	1·13	6	25	0·53	10	
Stirling	0·27	2	29	0·27	1	
Duck Lake	1·75	7	24	0·60	31	Thunder 12, 22. Aurora 28.
Bruederheim	1·16	5	26	0·38	19	" 8, 15, 26, 30.
Coutts	....	..	..	....	.	No rain during month.
Saltcoats	2·84	10	21	0·95	31	
Insinger	1·25	11	20	0·46	16	Thunder 3, 4, 7, 15, 26.
Herbert	0·61	3	28	0·58	2	
Hanley	0.20	2	29	0·10	3	
Manitoba—						
Deloraine	1·44	10	21	0·35	7	Thunder 2, 4, 10, 26, 28. Aurora 24, 27.
Beaver	0·97	5	26	0·36	3	
Rapid City	3·14	5	19	1·50	2	" 2, 4, 6, 9, 13, 16. Aurora 1, 4, 29, 30.
Belmont	1·30	8	23	0·34	2	" 2, 4, 5, 7, 16, 26, 28.
Cartwright	1·64	11	20	0·37	7	Aurora 1, 26, 28, 29.
Gretna	2·64	7	23	0·94	17	
Rosebank	1·26	10	21	0·34	7	
Ontario—						
Lions Head	2·04	7	24	1·32	20	Thunder 6, 20, 22.
Ennismore	1·85	3	28	1·60	15	" 16, 21.
Ursa	2·75	8	23	0·75	15	" 5, 12.
Deer Park	4·07	4	27	3·57	15	" 21.
Fitzroy Harbour	2·71	9	22	0·80	12	
Gower Point	2·13	5	27	1·05	11	" 21.
Arnprior	5·55	7	24	1·73	12	" 6, 12, 21, 30.
Britannia Bay	4·11	10	21	1·34	12	" 12.
Bonfield	1·58	5	26	0·87	5	
Nasbonsing Lake	1·28	5	26	0·46	30	
White Fish Pond	1·80	5	26	1·01	5	
Menard's Bridge	1·46	5	26	0·59	5	
Pinisi Bay	0·91	8	23	0·42	6	
Lake Talon	1·13	9	22	0·42	5	Thunder 22.
MacCue	4·25	10	21	1·75	30	
Emsdale	3·72	11	20	0·81	19	" 5, 19, 21, 29, 30,
Wooler	4·22	9	22	2·26	15	" 6, 26.
Georgetown	4·86	9	21	3·53	15	" 5, 6, 19, 21, 29. Aurora 1, 2, 26, 27, 30.
Goderich	1·00	3	28	0.40	4	
Dutton	3·11	6	25	2·00	15	
Orangeville	4·58	8	23	2·75	15	
Scarboro	5·65	7	24	1·21	15	Thunder 4, 12, 19, 21.
Sydenham	2·82	5	26	1·50	15	
Westport	2·22	7	22	0·86	30	" 5, 6, 9, 10, 12, 30.
Aurora	4·98	7	24	2·88	15	" 12.
Watford	3·91	7	24	1·45	14	
Princeton	3·16	7	24	1·89	15	" 24.
Westminster	2·19	4	27	0·92	4	" 4, 5.
Montague	5·04	6	25	2·27	3	" 30.
Wyoming	4·55	8	23	1·60	15	" 4, 5, 6, 7, 12, 19, 29.
Huntsville	2·82	7	24	0·65	21	" 5, 12, 30. Aurora 2.
Jermyn	3·16	4	27	2·21	15	" 4, 5, 30.
Croydon	2·15	5	26	1·65	15	" 6, 8, 12, 27, 30.
Arden	3·13	13	18	0·65	7	" 6, 7, 22, 27, 29.
Parma	5·08	7	24	3·00	15	
Lansdowne	3·17	8	23	1·32	15	" 5, 9, 28.
Smiths Falls	6·03	8	23	1·82	31	" 5, 6, 10, 13, 21, 30,
Wiarton	3·81	5	26	2·37	19	" 5, 19, 21, 29, 30.
Midland	2·47	8	23	1·00	19	" 5, 9, 21.
Quebec						
Bryson	3·20	9	22	1·20	12	
New Brunswick—						
Point Escuminac	1·36	7	25	0·46	12	Thunder 30.
Nova Scotia—						
Port Morien	4·31	8	23	1·42	29	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF AUGUST, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	0·08	0·62	0·71	0·79	0·70	0·74	0·80	0·80	0·77	0·79	0·74	0·69	0·58	0·12	.....
Nanaimo	.....	0·21	0·61	0·70	0·71	0·74	0·71	0·75	0·78	0·68	0·66	0·67	0·56	0·52	0·24	.....
Agassiz	.....	0·00	0·15	0·39	0·49	0·51	0·53	0·54	0·55	0·51	0·51	0·55	0·44	0·13	0·10	.....
Battleford	S	0·33	0·50	0·52	0·57	0·61	0·65	0·67	0·61	0·55	0·61	0·62	0·56	0·45	0·34	0·02
Indian Head	.....	0·11	0·37	0·71	0·83	0·88	0·85	0·78	0·78	0·83	0·79	0·70	0·66	0·30	0·02	.....
Brandon	.....	0·09	0·39	0·54	0·68	0·78	0·80	0·85	0·82	0·80	0·75	0·75	0·65	0·52	0·13	.....
Winnipeg	.....	0·22	0·55	0·73	0·76	0·74	0·71	0·77	0·72	0·73	0·66	0·63	0·55	0·42	0·13	.....
Woodstock	.....	0·05	0·52	0·66	0·68	0·76	0·78	0·77	0·71	0·73	0·75	0·76	0·72	0·52	0·04	.....
Toronto	.....	0·01	0·24	0·64	0·65	0·74	0·76	0·78	0·78	0·81	0·78	0·72	0·66	0·61	0·36	S
Lindsay	.....	0·14	0·40	0·53	0·66	0·72	0·76	0·77	0·74	0·73	0·67	0·54	0·48	0·40	0·34	0·02
Gravenhurst	.....	0·16	0·50	0·65	0·68	0·73	0·82	0·72	0·83	0·81	0·77	0·72	0·69	0·64	0·55	0·10
Kingston	.....	0·18	0·50	0·65	0·72	0·74	0·81	0·83	0·77	0·76	0·70	0·71	0·71	0·57	0·22	S
Ottawa	.....	0·15	0·57	0·67	0·72	0·76	0·86	0·81	0·77	0·76	0·68	0·62	0·57	0·42	0·02	.....
Montreal	0·03	0·17	0·48	0·60	0·70	0·70	0·75	0·83	0·82	0·78	0·78	0·72	0·41	0·21	0·01	.....
Quebec	.....	0·05	0·45	0·65	0·72	0·74	0·79	0·84	0·76	0·65	0·68	0·71	0·66	0·50	0·09	.....
Fredericton	.....	0·05	0·34	0·52	0·67	0·70	0·70	0·76	0·76	0·78	0·72	0·74	0·62	0·56	0·27	.....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·62	0·60	0·37	0·52	0·60	0·58	0·57	0·61	0·61	0·56	0·67	0·68	0·60	0·65	0·58	0·58
Difference from average	−0·03	—	−0·06	−0·02	+0·12	+0·02	·00	+0·06	+0·03	+0·02	—	+0·08	+0·08	+0·07	—	+0·08
Maximum daily amount	0·88	0·95	0·78	0·57	0·80	0·91	0·93	0·89	0·90	0·98	0·99	0·97	0·90	0·93	0·89	0·88
Date	8-31	7	25	22	22	22	22	31	27	20	16	27	25	3 10	3	21
No. of days completely clouded	1	1	6	0	1	1	2	4	1	2	1	3	1	1	0	2

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Threehills Creek, IV ; Gravenhurst, I ; Port Arthur, I ; Sangeen, IV ; Quebec, III ; Lucknow, I ; Clinton, Cockburn Island, Meaford, Haliburton, Rapid City, Georgetown, III ; Brandon, Aweme, I ; Albion, I ; Moose Jaw.

2. Gravenhurst, I ; Port Arthur, III ; Sangeen, IV ; Parry Sound, IV ; Quebec, IV ; Madoc, III; Clinton, Lucknow, IV ; Cockburn Island, Haliburton, Rapid City, Georgetown, III; Huntsville, IV; Threehills Creek, IV ; Estevan.

3. Sydney, IV ; Quebec, IV ; Madoc, IV.

5. Aweme, II.

6. Vancouver, III ; Sangeen, IV ; Aweme, III ; Albion, I ; Hillsdown, III ; Foxleigh.

7. Lloydminster, III.

9. Battleford, III.

18. Hillsdown, IV.

19. Aweme, IV.

20. Minnedosa, II ; Battleford, II ; Aweme, III ; Estevan.

21. Estevan.

22. Battleford, III ; Estevan.

24. Battleford, III ; Deloraine.

25. Cape Chatte, III.

26. Prince Albert, Lucknow, IV ; Cape Chatte, IV ; Georgetown, IV ; Treherne, Aweme, I ; Gray Hill, III ; St. Peter's, Albion, IV ; Threehills Creek, IV ; Lloydminster, IV.

27. Deloraine, Georgetown, IV ; Treherne.

28. Qu'Appelle, III ; Quebec, IV ; Cartwright, Gray Hill, III ; Albion, IV ; Moose Jaw, Threehills Creek, IV ; Estevan, I.

29. Port Arthur, I ; Winnipeg, II ; Quebec, IV ; Battleford, I ; Savanne, *very brilliant ;* Toronto, Cape Chatte, III ; Rapid City, Cartwright, Aweme, I ; Gray Hill, IV ; St. Peter's, Albion, II ; Moose Jaw, Threehills Creek, I ; Estevan, III.

30. Gravenhurst, IV ; Qu'Appelle, III ; Minnedosa, II ; Winnipeg, Quebec, IV ; Rapid City, Cartwright, Georgetown, IV ; Aweme, III ; Threehills Creek, III.

31. Birnam, III ; Oakbank, I ; Estevan, II.

Thunder recorded on :

1. Chilliwack, Toronto, Regina, Hedley, Alberni, Rossland, Princeton, Tobacco Plains, N. Nicomen, Rivers Inlet, Pekisko.

2. Sydney, Medicine Hat, Port Hastings, Rapid City, Belmont, Turtle Mountain, Aweme, Hedley, Nelson, Rossland, Quesnelle, Chaplin, Moose Jaw, Gatesgarth, Somas River, Bon Accord.

3. Vancouver, Nanaimo, St. John, Banff, Prince Albert, Battleford, Aweme, Gray Hill, St. Peter's, Alix, Thetis Island, Big Creek, Gleichen, Hillsdown, Foxleigh, Wetaskiwin, Moose Jaw, Gatesgarth, Threehills Creek, Barnardo, Bon Accord.

4. London, White River, Minnedosa, Winnipeg, Lucknow, Kenora, Savanne, Point Clark, Rapid City, Belmont, Scarboro', Westminster, Wyoming, Jermyn, Brandon, Almassippi, Oakbank, Hillview, Regina, Indian Head, Albion, Gatesgarth, Grenfell, Lloydminster, Bon Accord.

5. Gravenhurst, London, Lindsay, Minnedosa, Saugeen, Parry Sound, Port Stanley, Quebec, Rockliffe, Beatrice, Madoc, Lucknow, Bala, N. Bruce, Clinton, Kinmount, Uplands, Lakefield, Agincourt, Meaford, Paris, Haliburton, Birnam, Point Clark, Owen Sound, Perce, Smith's Falls, Wiarton, Midland, Channel Island, Foxleigh, Belmont, Lions Head, Ursa, Emsdale, Westport, Wyoming, Huntsville, Jermyn, Lansdowne, Lloydminster, Peterboro.

6. Vancouver, London, Lindsay, Madoc, Sutton W., N. Bruce, N. Gower, Bancroft, Lakefield, Birnam, Toronto, Chicoutimi, Shawenegan Falls, Rapid City, Ennismore, Britannia Bay, Wooler, Georgetown, Westport, Wyoming, Croyden, Arden, Smith's Falls, Oakbank, Revelstoke, Foxleigh.

7. Stony Mountain, Minnedosa, Prince Albert, Quebec, Toronto, Belmont, Wyoming, Almasippi, Hillview, Grenfell, Bernardo, Bon Accord.

8. London, Winnipeg, Prince Albert, Halifax, Kenora, Brome, Turtle Mountain, Bon Accord.

9. Gravenhurst, Prince Albert, Quebec, Beatrice, Bala, N. Bruce, Collingwood, Clontarf, Bancroft, Haliburton, Point Clark, Rapid City, Arnprior, Lansdowne, Turtle Mountain, Albion, Knee Hill, Threehills Creek, Estevan, Barnardo.

10. Stony Mountain, Lindsay, Fredericton, Winnipeg, Medicine Hat, Madoc, Sutton W., Lakefield, Kenora, Brome, Deloraine, Britannia Bay, Oakbank, Knee Hill, Peterboro, Renfrew

11 Quebec, Battleford, Port Burwell, Bruce Mines, Cockburn Island, Savanne, Summerside, Smith's Falls, Gray Hill, Threehills Creek.

12. Lindsay, Fredericton, Banff, Port Stanley, Quebec, Madoc, Sutton W., Sarnia, N. Gower, Upland-, Clontarf, Bancroft, Agincourt, Paris, Haliburton, Birnam, Moncton, Toronto, Brome, Perce, Ursa, Arnprior, Britannia Bay, Emsdale, Wooler, Scarboro', Westport, Aurora, Wyoming, Gray Hill, Albion, Alix, Hillsdown, Knee Hill, Renfrew, Bon Accord.

13. Minnedosa, Prince Albert, Sutton W., Port Dover, Aweme, Hillview, Gray Hill, Hillsdown, Wetaskiwin, Threehills Creek, Lloydminster, Bon Accord.

14. Vancouver, Minnedosa, Prince Albert, Kamloops, Port Stanley, Port Dover, Point Clark, Gray Hill, Albion, Quesnel, Hillsdown, Threehills Creek,, Lloydminster,.

15. London, Qu'Appelle, Port Burwell, Midland, Aweme, Regina, Indian Head, St. Peter's, Chaplin, Foxleigh, Moose Jaw, Gatesgarth, Threehills Creek, Bon Accord.

16. Rapid City, Belmont, Brandon, Barnardo.

17. Bermuda, Threehills Creek.

18. Bruce Mines, Cockburn Island, Oakbank, Hillview, Channel Island, Foxleigh.

19. Lucknow, N. Bruce, Bruce Mines, Cockburn Island, Meaford, Point Clark, Owen Sound, Emsdale, Georgetown, Scarboro, Wyoming, Wiarton, Gray Hill, Alix, Hillsdown, Wetaskiwin, Bon Accord.

20. Kenora, Savanne, Lions Head, Princeton, Lloydminster.

21. Lindsay, White River, Saugeen, Parry Sound, Beatrice, Madoc, Lucknow, Bala, N. Bruce, Collingwood, Clinton, Uplands, Bancroft, Lakefield, Agincourt, Meaford, Birnam, Owen Sound, Toronto, Ennismore, Deer Park, Gower Point, Arnprior, Emsdale, Georgetown, Scarboro', Wiarton, Midland, Threehills Creek.

22. Quebec, Sutton W., North Gower, Kinmount, Kenora, Lions Head, Arden, Peterboro.

23. Wolfville, Foxleigh, Renfrew.

24. Father Point, Paris, Summerside, Cape Chatte, Princeton.

25. Chaplin, Moose Jaw, Estevan, Bon Accord.

26. Lindsay, Qu'Appelle, Halifax, Madoc, Kenora, Port Dover, Agincourt, Deloraine, Belmont, Wooler, Almasippi, Hillview, Regina, Albion, Estevan, Barnardo, Peterboro.

27. Bermuda, Rockliffe, Sutton W., Arden, Gleichen, Foxleigh, Moose Jaw, Estevan, Lloydminster, Pekisko.

28. Qu'Appelle, Minnedosa, Winnipeg, Battleford, Madoc, Clontarf, Haliburton, Savanne, Deloraine, Belmont, Brandon, Almasippi, Hillview, Regina, Nelson, Quesnel, Knee Hill.

29. Gravenhurst, White River, Port Stanley, Beatrice, Madoc, Collingwood, Kinmount, Port Hope, Lakefield, Agincourt, Meaford, Haliburton, Wyoming, Arden, Wiarton, Garry Point, Lloydminster.

30. Lindsay, Parry Sound, Charlottetown, Beatrice, Sutton W., Bala, Stony Creek, Uplands, Clontarf, Brantford, Abitibi, Arnprior, Georgetown, Westport, Smith's Falls, Huntsville, Jermyn, Croydon, Wiarton, Albion, Ladner, Hillsdown, Threehills Creek, Estevan, Bon Accord.

31. Qu'Appelle, Sussex, Chaplin, Moose Jaw, Gatesgarth, Estevan.

FORECASTS FOR AUGUST, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1277. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Manitoba	85	70	12	3	89·4
Lake Superior	131	96	32	3	85·5
Lower Lake Region	133	116	17	0	93·6
Georgian Bay	133	113	17	3	91·4
Ottawa Valley	131	103	21	7	86·6
Upper St. Lawrence	131	105	18	8	87·0
Lower St. Lawrence	134	94	28	12	80·6
Gulf	132	99	21	12	83·0
Maritime Provinces, West	133	109	18	6	88·7
Maritime Provinces, East	134	102	21	8	85·1
Total	1277	1007	208	62	87·1

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
27th September, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. SEPTEMBER, 1905. No. 9.

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

In British Columbia the weather was exceedingly wet and somewhat warmer than usual at most places. In Vancouver Island bright sunshine exceeded the average but elsewhere it was deficient. From the 5th to 7th and 16th to 31st, rain occurred frequently, the intervening periods being comparatively fine. High winds were frequent but no gales of importance were recorded. Light frosts occurred at a few places after the 10th, but they did little damage and vegetation was green and luxuriant throughout the month.

The weather in the North-West Territories was unusually warm, and owing to frequent comparatively low temperatures at night the daily range was generally quite high. At most places the precipitation which was recorded chiefly on or about the 1st and 2nd and from the 7th to 17th was light, nevertheless at a few stations where heavy showers or thunderstorms occurred the amount was excessive. Bright sunshine exceeded the average and from the 17th to 30th there was much fine weather. High winds prevailed and light frosts were also recorded. The condition of vegetation was normal.

In Manitoba the weather was exceedingly warm, more especially during the last few days of the month when 90° was recorded at a few places. The night temperatures, however, were frequently quite low causing an occasional daily range of 40° to 50°. The total amount of precipitation varied with the district, it being below the average at some places and above at others, the chief falls occurring on or about the 1st, 8th, 11th, 14th and 15th, 18th, 25th and 30th. Bright sunshine was excessive and there were many fine days. Light frosts were recorded but did little damage to vegetation which was unusually green on the 30th.

In Ontario the weather was unusually warm, and in most districts the proportion of bright sunshine also exceeded the average. In southern and western portions of the province, also at most places in extreme eastern counties it was exceedingly dry, whilst elsewhere on the contrary it was unusually wet. Showers were frequent at most places from the 2nd to 6th, also from the 11th to 19th, and on or about the 3rd, 13th and 18th the rainfall was heavy. Cool weather prevailed from 13th to 15th, also from the 24th to 26th when light frosts occurred at night at many stations. The condition of vegetation was normal.

In the Province of Quebec the weather was exceedingly dull and somewhat wet but otherwise did not depart much from the average. Comparatively fine weather prevailed on the 1st, 2nd, 7th, 12th, 14th and 15th and 20th to 22nd, the intervening periods being mostly showery. Light frosts were recorded in many places late in the month but vegetation was not much affected thereby and on the 30th was comparatively green.

The weather conditions in New Brunswick were somewhat similar to conditions in Quebec, but the excess of rainfall was greater and there was more sunshine. Much rain occurred on or about the 5th to 8th, 14th, 19th and 25th, fine weather generally prevailing between these dates. Light frosts were reported from a very few stations but the trees were little affected and still retained their leaves on the 30th.

In Nova Scotia the weather was quite cool, more especially from the 14th to 18th and 24th to 30th. Rain was frequent from the 4th to 7th, also on or about the 14th, 15th to 19th and 24th, and at most

places the total amount was excessive. Fog occurred somewhat frequently and the amount of bright sunshine was deficient. Light frosts were reported from a few places late in the month, but vegetation was not affected and was green and luxuriant on the 30th.

The weather in Prince Edward Island was mostly dull, cool and wet. Rain was general on or about the 4th to 8th, 14th, 18th, 25th and 26th, and there was little sunshine from the 1st to 3rd, 8th to 10th and 21st to 24th. No frost was reported and vegetation showed few signs of Autumn.—F. F. Payne.

ATMOSPHERIC PRESSURE.

With a few local exceptions the atmospheric pressure for September was subnormal throughout Canada; the Gaspé Peninsula of Quebec, New Ontario, and a few localities in Alberta alone reporting a slight excess. Extremes of departure from average were—0·09 of an inch at Kamloops, B.C. and +0·03 of an inch at Banff, Alberta.

HIGH AREAS.

Seven anti-cyclonic areas passed over the Continent during September, the majority being first observed over British Columbia or Alberta and moved southeastward over the Lake Region to the Atlantic. As a rule the areas were of moderate intensity, one only being pronounced. Local frosts accompanied some of the areas in the North-West Provinces but no general cold waves were experienced.

LOW AREAS.

During September eight cyclonic systems were sufficiently well marked to permit of their paths being traced. Four were first observed over the Southwestern States, and four over the North-West Provinces, the trajectories of the two series converging at the Lake Region and thence passing eastward to the Gulf of St. Lawrence.

In addition to these systems there were some few which were confined to western territories.

Strong winds and gales accompanied most of the areas from the Lakes to the Atlantic, and the region of maximum intensity was nearly equally divided between the Great Lakes and Gulf of St. Lawrence.

WINDS.

In British Columbia and over Vancouver Island and on the Mainland the direction was chiefly south and west, but there were many days when it was variable. There were seven days with strong and ten with fresh breezes.

In Alberta and Saskatchewan the north and west directions were most in evidence with thirteen days of strong and eleven of fresh breezes and one general gale.

In Manitoba the direction was variable, no one direction being especially marked. There were seventeen days with strong and ten with fresh breezes.

In the Lake Region the direction was largely variable, favouring somewhat the south and west. There were five days with strong and twelve with fresh breezes. Gales were also experienced on the 2nd, 14th and 19th, widely on Lake Superior, but only locally on the other great lakes.

In the Ottawa and Upper St. Lawrence Valleys the south and west directions predominated with eight days of strong and twelve of fresh breezes.

In the Lower St. Lawrence Valley and the Gulf the south and west directions were the most general, but during the first week the north and east directions prevailed. There were eleven days with strong and five with fresh breezes and three moderate gales. The gales occurred on the 4th, 14th and between the 25th and 26th, and were all more or less local.

In the Maritime Provinces the north and west directions were the most general with four days of strong and nine of fresh breezes and two moderate gales, the latter being experienced on the 14th and between the 25th and 26th, and being more or less local.

The storms were all successfully warned.

TEMPERATURE.

The temperature was below the average in Quebec and over the greater portions of the Maritime Provinces and British Columbia, elsewhere in the Dominion it was above the average. The positive departures occurred chiefly in Manitoba and over the southern parts of Alberta and Saskatchewan, and ranged from 3 to 5 degrees, and the most marked negative departures were recorded in the vicinity of the Bay of Fundy and along the south shores of Nova Scotia, where in many localities the deficiency was 3 degrees or more.

The highest and Lowest temperatures in each Province during September, 1905, were :

British Columbia,	90° ·2 on 1st at Alberni,	20° ·0 on 27th at Big Creek.
N. W. Territories,	87° ·0 on 22nd at Medicine Hat,	13° ·0 on 30th at Knee Hill.
Manitoba,	91° ·0 on 27th at St. Albans,	23° ·0 on 12th at Treherne.
Ontario,	91° ·0 on 29th at Cottam,	18° ·0 on 26th at Uplands.
Quebec,	81° ·9 on 12th at Chicoutimi,	30° ·0 on 15th at Brome.
New Brunswick,	83° ·0 on 10th at Chatham,	27° ·0 on 30th at Sussex.
Nova Scotia,	79° ·0 on 13th at Wolfville,	30° ·0 on 30th at Parrsboro'.
Prince Edward Island.	76° ·0 on 11th at Charlottetown.	38° ·0 on 27th at Summerside.

PRECIPITATION.

The rainfall was above the average in British Columbia, except far north in the interior, the positive departures being very marked in many localities, especially in the Lower Mainland where New Westminster recorded 7·10 inches, Rivers Inlet 9·04 inches, Garry Point 5·66 inches and N. Nicoman 6.51 inches above the usual amount. In Alberta, except at Edmonton, where it was two-tenths of an inch above the average amount the rainfall was generally deficient, Calgary reporting as much as an inch below the usual quantity. In Saskatchewan and Manitoba the precipitation was above the average in some localities and below in others ; a positive departure of 3·16 inches at Qu'Appelle, and 3·68 inches at Indian Head, and a negative one of 0·98 inches at Medicine Hat were the most noteworthy departures. In Ontario from the Lake Superior district east almost to the boundary and including the Georgian Bay region the rainfall was well above the average, elsewhere it was for the most part deficient, especially over Lakes Erie and Ontario and their environs. Port Stanley recorded 1·74 inches below, Toronto 1·48 inches below, Kingston 0.86 inches below. In Quebec the average amount was exceeded in all localities, also in the Maritime Provinces, except at Halifax and its immediate vicinity, where a deficiency of over an inch was reported. The principal positive departures were Quebec, 1·0 inches ; Father Point, 1.47 inches ; Chatham, 2·60 inches ; St. John, 2·78 inches ; Fredericton, 2·09 inches ; Charlottetown, 1·40 inches.

BRIGHT SUNSHINE.

The amount of bright sunnshine recorded in Canada during September was deficient from the interior of British Columbia to Western Saskatchewan, and also from Eastern Ontario to the Maritime Provinces. Extremes of departure from normal value were —15 p.c. at Montreal and +11 p.c. at Barrie, Ontario.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, 1905

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.																																		
BRITISH COLUMBIA																																								
Victoria	48 24	123 19	85	29·96	30·18	29·60	0·58	56·3	+ 1·0	14	75·0	1	44·4	29	10·4			7	11	87	70	51	73	97	107	105	6	124	720	6·6	17 5	13 SW	4·63	- 1·96	1·06	15	11	0	0	5
Barkerville	53 2	121 35	1180	29·90	30·24	29·43	0·81	45·0	- 1·3	17	74·0	12	26·0	27	22·3			7	8	0	0	0	0	11	0	0	0	49	60				2·08	- 1·6	0·45		3	17	0	0	0
Agassiz	49 14	121 31	52					51·9	- 2·8	16	68·0	2	38·0	30	19·8			4	1	12	0	0	0	48	0	30	0	0	90				8·10	- 3·81	1·04	18	12	0	0	0
Port Simpson	54 34	130 26	26	29·80	30·15	29·15	1·00	51·8	- 0·7	17	65·6	7	39·0	30	12·2			7	9	1	7	6	6	11	2	9	3	15	60				9·33	- 0·28	1·06	21	9	0	1	0
Revelstoke	51 0	118 6	1476					53·1	—	5	78·0	4	41·0	2	16·3																		5·68		0·86	18	12	0	0	0
Kamloops	50 41	120 29	1193	29·81	30·30	29·54	0·76	57·5	0·0	12	77·6	22	36·0	29	18·8			5	7	0	1	2	2	7	0	1	0	47	60		11·0	19 S	1·51	- 0·56	0	8	19	0	0	0
Princeton	49 29	120 29	1650					54·4	+ 0·5	11	81·0	4	30·0	29	25·5																		1·61	- 0·67	0·63	8	22	0	0	4
Rivers Inlet	51 39	127 19	20	29·91	30·23	29·37	0·86	51·6	- 1·7	11	69·7	1	39·1	30	12·0	51·2	96	6	5	0	0	11	17	1	1	12	0	45	90	11	IV	18 SE	17·68	- 9·01	3·77	21	9	0	1	1
Stuart's Lake	54 28	124 12	1800																																						
Coldstream	50 14	119 15	1246					56·4	+ 0·9	11	84·0	4	35·0	29	21·2																										
aNanaimo	49 10	123 57		29·84	30·06	29·48	0·58	56·0	—		6 72·2	1	37·9	29	14·8			6	5	3	2	7	24	10	1	5	11	27	90	1·8	12·0	18 SE.	3·27		0·75	12	18	0	0	6
Chilliwack	49 10	121 57	21	29·97	30·18	29·63	0·58	57·6	—	7	81·6	1	42·0	6	15·0			7	7	3	14	19	16	16	14	5	3	0	90				5·58	—	1·85	19	11	0	0	0
Port Robs	50 32	128 3						53·0	—	9	69·0	2	40·0	30	12·9					0	1	1	6	2	6	1	13	0	30				9·18	—	1·49	17	13	0	0	1
Midway	49 0	118 16	1800																														14·27		1·01	20	10	0	1	0
Nicola Lake	50 9	120 39	2120					52·7	+ 0·3	10	76·0	4	32·0	26	21·3																										
West Kootenay	49 20	117 50																															2·14	- 1·51	0·55	8	22	0	0	0
Garry Point	49 21	123 17						54·7	+ 1·1	10	68·0	1	39·5	1	13·4																										
Tobacco Plains	49 1	115 5	2681					57·2	+ 4·1	10	82·1	6	32·0	30	20·5					2	1	22	3	33	1	8	13	7	90	8·3	16·0	16 S	7·82	+ 3·66	1·80	18	12	0	0	3
aVancouver	49 17	123 5		29·82	30·06	29·18	0·58	56·0	—	1	72·9	1	40·2	1	14·8																		1·10	- 0·27	0·29	10	20	0	0	2
New Westminster	49 13	122 54	330	29·95	30·16	29·63	0·53	56·6	— 0·6	12	76·0	1	42·2	1	13·4	53·6	86	6	9	0	0	24	7	1	3	3	3	19	60	3·3	17·5	30 W	9·49	—	2·70	17	9	0	5	6
Ladner	49 5	123 4						52·8	—	3	71·0	3	40·0	10	19·7			7	13	1	4	19	3	3	10	0	3	17	60		8·0	30 SW	10·36	+ 7·03	2·65	17	12	0	3	1
North Nicomen	49 12	122 2	59					58·0	+ 0·7	13	82·0	1	45·0	27	14·2																		8·81	—	1·25	17	13	0	0	0
Quesnelle	52 59	122 30	1700					58·4	+ 2·6	11	81·0	12	29·0	27	29·9																		10·67	6·51	2·23	17	13	0	1	0
Clayoquot	49 11	125 47	40					55·2	—	7	70·0	12	39·5	30	14·4																		0·51	- 1·10	0·30	3	27	0	0	0
Cranbrook	49 30	115 50	2000																														10·85		2·59	17	13	0	0	0
Massett	53 58	132 9	30					54·6	—	8	69·0	8	38·0	30	19·9					0	2	0	31	1	2	15	9	0	60				10·65		1·30	20	10	0	1	1
Bullion	52 45	121 55	2775					49·9	—	9	76·0	14	29·0	6	23·9																		1·34		0·35	8	22	0	0	0
Bella Coola	52 40	126 54	150																																						
Cowichan	48 25	123 42	170					55·9	—	2	75·6	1	36·5	29	16·4																										
Nelson	49 29	117 21	1760					55·7	—	5	81·0	5	38·0	30	21·0																		4·91	—	1·57	18	10	0	0	0
Okanagan Mission	49 52	119 29	1200					56·1	—	7	79·4	1	35·6	27	21·6																		2·27	—	0·38	16	11	1	1	0
Alberni	49 15	124 49						58·1	+ 0·6	11	90·2	1	37·0	1	23·2																		2·09	—	0·40	11	17	0	0	0
Kuper Island	48 54	123 38	40																														5·32	—	0·91	15	15	0	0	0
Cape Scott	50 48	128 27						52·1	—	8	62·7	2	40·0	30	27·9																										
Glacier	51 14	117 29	4072																														14·10		5·13	20	10	0	0	0
Golden	51 16	116 55	2550					51·7	—	4	80·0	5	29·0	15	22·4																										
Spence's Bridge	50 25	121 30	760																																						
Bamfield	48 50	125 9		29·91	30·19	29·58	0·51	55·3	—	3	70·6	4	43·0	22	18·9																								8·22	0	2	0
Big Creek	51 40	123 0						46·5	—	2	75·0	12	20·0	27	29·3			5	8	0	0	0	31	5	0	24	1	23	90				9·22	—	1·90	16	11	0	0	4
Nickel Plate	49 30	120 0	5400					45·6	—	2	68·0	23	25·0	29	17·5																		0·51	—	0·31	6	22	0	0	0
Thetis Island	49 0	123 40								1	72·5	10	40·6	29	—																		1·59	—	0·55	10	20	0	0	0
Hedley																																	6·33	—	2·31	19	10	0	2	0
Kitamaat	53 59	128 12						51·2	—	3	74·0	10	35·0	22	14·8																										
Rossland	49 5	117 48	3400					53·6	—	2	75·6	4	36·0	29	18·1					9	1	1	10	1	5	1	0	2	30				11·18	—	3·43	18	12	0	0	0
*Port Essington	54 9	129 55	10					52·4	—	1	78·0	7	37·0	29	—																		2·61	—	0·50	11	19	0	1	0
Atlin				29·79	30·33	29·32	1·01	42·4	—	1	60·0	7	24·0	30	15·8					3	1	6	10	19	3	1	1	3	60				13·60		2·06	17	13	0	0	0
																																	1·06			12	11	0	0	0
N. W. TERRITORIES																																								
Medicine Hat	50 1	110 37	2161	29·85	30·34	29·50	0·84	59·8	+ 4·6	21	87·0	22	27·7	30	26·4			6	2	0	0	5	1	5	6	13	4	26	60		21·0	20 SW	0·16	- 0·98	0·08	2	25	1	1	1
Edmonton	53 33	113 30	2158	29·82	30·28	29·33	0·95	51·8	+ 2·2	22	79·0	26	28·0	30	25·8			5	1	4	1	4	15	1	7	2	18	8	60		20·0	2 S E	1·68	- 0·15	0·94	7	12	6	2	1
Swift Current	50 20	107 45	2439	29·89	30·43	29·44	0·99	55·1	+ 2·5	19	81·0	22	32·0	2	25·0			5	1	4	4	5	6	6	8	15	5	7	60		23·3	24 SE	1·12	- 0·21	0·52	6	21	1	3	0
Qu'Appelle	50 30	103 47	2115	29·87	30·39	29·40	0·99	53·8	+ 2·6	22	79·7	28	34·5	24	23·9			6	3	5	3	7	9	8	12	5	11	0	6		15·0	20 W	4·61	+ 3·16	2·40	8	21	1	0	2
Calgary	51 2	114 2	3389	29·85	3 38	29·46	0·92	51·5	+ 1·9	21	80·0	22	22·0	30	29·9			6	6	0	4	2	11	1	3	13	16	10	60		21·0	25 W	0·35	- 0·97	0·29	3	27	0	1	0
Prince Albert	53 10	106 0	1432	29·82	30·44	29·42	1·02	49·4	+ 0·6	20	69·8	2	25·5	12	20·4			5	5	1	1	3	5	7	5	5	5	28	60		16·0	21 SE	2·29	- 0·96	0·72	7	22	4	0	0
Battleford	52 41	108 20	1629	29·89	30·42	29·34	1·08	53·5	+ 2·2	14	76·0	19	26·0	12	24·9			5	1	34	23	190	39	29	14	162	82	147	720	6·3	23·0	20 W	0·70	- 0·57	0·44	7	19	4	0	3

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. SEPTEMBER, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure: Mean reduced	Pressure: Highest.	Pressure: Lowest.	Pressure: Range.	Temperature: Mean.	Temperature: Difference from average.	Temperature: Years observation	Temperature: Highest.	Temperature: Date.	Temperature: Lowest.	Temperature: Date.	Temperature: Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from: N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Velocity of wind: Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation: Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
ONTARIO *Con.*				in.	in.	in.	in.																																
Brantford	43 10	80 21	750					60·7	+ 0·3	22	85·0	29	31·0	25	23·4					4	4	59	84	41	119	37	172	111	69	28	720	7·1	13·3	21 SW	2·79	− 48	0·74	7	23	0	4	1
Parry Sound	45 19	80 0	635	30·03	30·12	29·69	·73	60·1	+ 3·1	29	82·0	19	28·0	26	18·3																		5·78	+1·99	2·13	12	16	0	5	0
Owen Sound	44 34	80 55	597					61·9	+ 2·0	27	87·0	30	30·0	26	23·8																		2·71	− 0·52	1·3	8	22	0	3	4
Beatrice	45 8	79 20	806					56·8	+ 2·0	30	80·0	30	23·0	26	21·9			5	1	3	0	1	13	10	4	0	16	43	90	1	11	24 W	5·28	− 1·3	1·13	10	20	0	2	0
Coldwater	44 38	79 40	600																																				
Gravenhurst	44 51	79 20	770					59·4	+ 2·2	34	81·0	30	29·0	14	21·7			4	1	17	2	8	9	14	8	8	6	18	90	11	VI	25 S	3·49	+ 0·28	1·32	6	1	4	2	0
Haliburton	45 1	78 28						56·4	+ 0·1	18	84·0	30	23·0	26	27·8																		2·65	0·36	1·62	9	19	1	2	0
*Point Clark	44 5	81 44	595					62·5	+ 2·5	35	87·0	18	35·0	26				3	0	20	0	0	1	33	10	11	12	4	90	IV	X	24 W	1·17	1·89	1·17	1	29	0	0	0
Birnam	43 2	81 55	600					61·1	+ 0·6	22	83·4	29	34·9	26	19·7					14	1	4	0	6	8	14	10	3	60				2·89	− 0·10	2·32	5	25	1	3	1
London	42 59	81 13	808	30·02	30·37	29·75	0·62	61·4	+ 0·8	22	85·0	29	28·0	26	22·9			5	4	6	2	0	10	5	36	15	16	0	60	1	III	24 W	2·33	0·31	0·74	11	7	0	4	1
Port Stanley	42 40	81 13	592	30·05	30·38	29·77	0·61	60·8	0·1	31	76·0	19	33·1	26	19·1			5	6	36	77	35	143	4	166	62	167	0	720	8·3										
Woodstock	43 8	80 47	980	30·03	30·38	29·71	0·77	60·8	− 1·7	30	85·0	29	29·0	26	22·4	55·0	82	4	3	7	10	12	23	11	30	36	33	18	180	8·5	19·0	21 SW	2·16	− 0·59	0·68	8	9	0	1	0
Port Dover	42 47	80 13	635					60·2	− 1·1	31	77·3	19	34·0	26	16·7																		3·22	+ 0·83	0·61	12	18	1	1	0
Pelee Island	41 50	82 38	585					65·8	+ 0·6	25	78·5	15	52·0	25	8·9																		0·81	1·17	0·81	2	8	0	0	0
Paris	43 12	80 25	840					60·4	+ 0·2	16	89·0	2	24·0	26	32·2																		1·91	0·80	0·54	9	21	0	2	0
Bancroft	45 1	77 51						56·8	+ 3·1	14	84·0	30	23·5	26	23·2																		4·09	+1·03	1·10	7	23	0	2	0
Calvin	46 15	78 48						57·7	+ 2·9	10	85·0	19	24·0	26	27·0																		3·15	1·09	1·31	11	19	2	4	2
Agincourt	43 47	79 16						60·3	+ 0·3	10	85·0	30	29·0	26	22·0																		1·5	− 0·54	0·68	5	25	0	0	0
Hamilton	43 16	79 54	403																																				
Port Hope	43 56	78 20						58·9	1·9	10	79·6	30	31·0	25	17·7																		2·79	− 0·27	1·96	8	22	0	2	0
Kinmount	44 45	78 38						58·2	−	8	84·5	30	21·0	26	26·1																		3·89	−	1·68	8	22	0	3	1
Cockburn Island	45 57	83 18	610					58·6	−	8	79·0	12	33·0	14	19·2																		2·77	−	·10	11	19	0	1	1
Chatham	42 23	82 12	595					64·0	+ 2·2	19	85·0	29	37·0	26	21·8																		2·35	+ 0·13	0·95	4	26	0	0	0
Meaford	44 37	80 37						60·2	−	7	83·0	20	32·0	26	16·1																		2·29	−	1·02	8	22	2	2	1
Listowel	43 44	80 58						57·2	−	8	80·0	19	28·0	25	21·6																		1·6	−	1·18	3	27	0	0	0
Bruce Mines	46 18	83 55	595					59·6	−	7	78·0	11	33·0	43	22·5																		2·48	−	1·07	10	20	1	1	0
Rat Portage (Kenora)	49 48	94 32	1102					58·1	−	7	83·2	29	33·3	12	19·2																		3·69	−	1·63	4	26	5	5	0
Sturgeon Falls	46 16	79 54																																					
Uplands	45 48	79 25						56·6	+ 2·4	20	85·5	30	18·0	26	30·1					1	1	1	2	0	7	9	9	0	30				2·59	− 1·51	0·91	9	21	0	3	0
Toronto	43 40	79 24	350	30·04	30·42	29·76	0·66	61·7	+ 2·9	65	83·2	30	31·9	26	18·4	55·7	79	5	3	68	50	86	33	102	119	77	108	77	720	7·0	13·9	2 NE	1·73	− 1·48	0·98	12	17	2	2	0
Welland	42 59	79 17	425					62·2	+ 0·5	18	85·0	19	34·0	26	20·5																		1·84	− 1·57	0·63	6	24	0	0	0
Peterborough	44 17	78 19	722					58·9	− 0·1	36	86·0	30	29·0	26	26·0																		3·22	− 0·11	1·16	5	25	0	0	1
Lindsay	44 20	78 45	872	30·00	30·39	29·67	0·72	60·6	+ 3·4	23	84·6	30	29·8	26	21·6	53·8	85	5	3	8	2	2	9	9	1	4	10	36	90	1	IV	21 SW	2·14	0·72	0·90	11	17	0	2	2
Deseronto	44 11	77 4	264																																				
Lakefield	44 25	78 15						60·3	+ 1·3	21	81·0	30	32·0	25	21·3																		2·43	0·11	1·72	6	24	0	3	0
Kingston	44 13	76 29	285	30·04	30·44	29·76	0·68	60·6	+ 0·1	31	77·8	19	31·0	26	15·7			6	3	5	5	1	6	5	23	6	7	2	60		16·0	15 S	1·90	0·86	0·98	10	17	0	0	1
Clontarf	45 23	77 9						58·4	+ 1·0	18	83·0	3	28·5	14	22·9																		6·55	+3·93	3·07	11	19	2	2	0
Ottawa	45 26	75 42	294	29·99	30·39	29·64	0·75	59·8	+ 1·9	22	78·0	10	36·0	14	17·1			5	1	4	1	14	5	6	5	18	4	3	60				2·35	− 0·32	0·83	12	14	0	1	2
Rockliffe	45 9	75 42	557	30·02	30·44	29·55	0·89	58·6	+ 3·0	28	83·0	30	30·0	26	21·5			6	4	0	3	2	0	0	3	3	4	45	60				1·58	+1·22	1·38	13	17	0	1	6
*Sarnia	42 59	82 24	586					60·5	− 0·4	11	85·0	19	34·0	26	—					10	1	5	4	16	8	0	0	46	90				1·08	− 1·28	0·71	3	27	0	0	2
Stratford	43 23	81 0	1191					60·7	+ 2·4	38	81·0	30	32·0	26	20·8																		2·92	− 0·22	1·59	4	26	0	0	0
Lucknow	43 56	81 30						60·7	+ 0·4	20	85·0	30	30·9	26	22·5																		3·07	·03	1·33	9	19	3	4	3
White River	48 35	85 16	1252	29·98	30·42	29·37	1·05	54·2	+ 4·0	16	79·5	30	22·0	13	20·8			6	4	46	78	40	112	68	112	38	114	112	720	5·4	12·0	19 S	2·86	0·04	0·50	16	12	0	1	0
Port Arthur	48 27	89 12	611	29·98	30·42	29·39	1·03	54·6	+ 2·4	25	73·0	5	28·0	13	16·8			5	5	67	63	27	155	131	20	88	128	41	720	5·7	15·0	3 NW	4·58	+1·20	1·53	9	20	0	0	3
Stony Creek	43 13	79 45	292					61·1	+ 1·7	21	88·0	29	38·0	26	20·9			4	2	7	4	15	3	10	21	12	8	10	90	III	VI	21 SW	2·37	0·62	1·00	8	22	0	0	0
*Otonabee	44 20	78 18	671					60·7	+ 0·2	10	82·0	30	32·0	26						3	3	5	7	0	42	16	14	0	9				2·26	− 0·48	1·20	5	25	0	0	1
Windsor	42 20	83 4	625					62·9	+ 0·1	32	80·0	29	42·0	26	16·8																		2·96	− 0·75	0·72	6	24	0	0	0
Alton	43 51	80 5	1250																																				
Guelph	43 33	80 16						61·6	+ 2·5	18	86·6	29	29·0	26	23·8					3	0	4	5	3	4	13	4	8	41				1·68	·49	0·78	5	23	0	0	2
*North Bruce	44 23	81 25						61·3	+ 2·1	18	85·0	30	32·0	26	—					5	2	7	2	23	36	10	5	1	9				1·78	0·91	0·93	7	23	1	2	1
Collingwood	44 30	80 15	595					59·3	0·7	14	80·0	20	32·0	26	15·5																		0·98	2·11	0·53	11	19	0	0	0
Rockly	44 28	80 36	1339																																				
Bala	45 0	79 30	740					58·8	0·7	23	78·5	19	37·5	14	17·4																		3·63	+ ·48	1·07	10	17	0	2	2
Orillia	44 34	79 24	775																																				
Saugeen	44 30	81 21	656	30·01	30·41	29·72	0·69	61·1	+ 2·2	29	85·6	19	30·6	26	16·5			4	4	96	37	17	61	162	144	16	110	78	720	6·8	22·0	22 W	2·56	− 0·46	1·19	7	22	0	1	2
St. Catharines	43 10	79 17																																					

| | | |

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING SEPTEMBER, 1905.

STATION	RAINFALL					REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	
	in.			in.		
BRITISH COLUMBIA—						
Sooke Lake	7·15	13	17	2·01	7	
Coquitlam	11·58	11	19	2·66	7	
Royal Oak	5·08	13	17	1·50	6	
Naas Harbour	19·23	15	15	2·03	19	Thunder 13. Fog 1, 14, 29.
Nanaimo	5·38	14	16	1·07	25	
Somas River	6·09	15	15	1·01	24	
Sandpit	3·81	11	19	0·72	6	
N. W. TERRITORIES—						
Saltcoats	2·53	5	25	0·70	30	
Innisfail	0·93	8	22	0·43	6	
Coutts	0·00	0	30	—	—	No rain during month.
Beaver Hills W	1·49	6	24	1·01	5	Thunder 1, 5. First frost 11.
Regina	3·01	6	23	2·20	30	
Lacombe	0·90	3	27	0·39	1	
Jumping Pound	0·25	3	27	0·16	15	Thunder and hail 15.
Duck Lake	1·35	4	26	0·60	14	
Last Mountain	3·28	5	25	1·38	1	Thunder 14. Aurora 18, 21.
Bruederheim	1·86	4	26	1·35	5	" 5.
Stirling	0·72	2	28	0·59	17	
Dundurn	1·95	3	27	1·00	28	
Dirt Hills	1·69	4	26	0·87	29	
Insinger	6·03	10	20	1·89	30	
MANITOBA—						
Cartwright	2·33	6	24	1·49	13	Aurora 18, 26.
Rapid City	1·54	6	20	0·60	30	" 23, 24. Thunder 13.
Norquay	1·57	4	26	0·98	14	Thunder 14, 17. Temp. 89° on 29.
Deloraine	2·60	7	23	1·01	14	" 1, 7, 8, 13, 25. Aurora 3, 26.
Beaver	2·16	7	23	0·85	14	
Belmont	2·09	6	23	1·18	14	" 1, 8, 14, 17, 25.
Gretna	1·40	4	23	0·83	14	First frost 12.
ONTARIO—						
Wyoming	3·05	5	25	1·80	17	Thunder 12, 15, 19, 28.
Ursa	4·17	10	20	2·05	17	" 12, 17, 19.
Lansdowne	0·79	5	25	0·36	3	
Smiths Falls	1·99	5	25	0·58	6	"
Orangeville	2·60	9	21	0·76	3	
Sydenham	2·49	5	25	1·80	3	
Huntsville	4·60	8	22	1·54	3	" 12, 15, 17, 20. Aurora 18, 20.
Midland	2·85	8	22	1·13	2	" 2, 16.
Wiarton	2·92	8	22	1·25	17	" 19.
Croydon	2·50	4	26	1·30	3	" 13, 20.
Aurora	1·56	10	20	1·23	17	" 18.
Emsdale	3·87	12	18	1·07	1	" 12. Aurora 18, 20.
Westminster	2·06	6	24	0·56	17	" 12.
Wooler	2·16	7	23	0·81	17	
Watford	2·30	3	27	1·95	17	
Goderich	1·40	3	27	1·00	17	
Ennismore	2·31	2	28	2·20	17	
Deer Park	1·24	5	25	0·71	17	
Georgetown	2·35	13	14	0·73	18	Thunder 2, 12, 15, 19. Aurora 3, 4, 5, 18, 20, 35, 26, 27, 30.
Princeton	1·01	9	21	1·01	2	" 2.
Lion's Head	2·42	10	20	1·11	17	" 14.
Arden	3·50	12	18	1·30	18	" 3, 6, 13, 16, 18, 20. First ice 26.
Montagne	1·98	4	26	1·23	3	
Scarboro	1·51	11	18	0·63	17	" 12, 19. Aurora 11, 24, 29.
Westport	2·20	8	22	1·48	3	" 3, 4, 5, 19. Aurora 18.
Parma	2·04	4	26	1·16	3	
MacCue	1·89	8	22	1·00	3	
Dutton	1·25	4	25	0·75	15	" 15, 19.
Britannia Bay	1·99	9	21	0·94	17	" 24.
Fitzroy Harbour	3·08	10	20	0·90	17	
Nasbonsing Lake	3·47	8	22	1·70	17	
Turtle Dam	2·08	6	24	0·98	3	
White Fish Pond	4·22	10	20	2·01	17	
Menard's Bridge	4·11	10	20	2·02	17	
Lake Talon	3·09	7	23	1·63	17	
Gower Point	5·11	8	22	1·72	16	
Arnprior	3·35	6	24	1·86	17	
N. Williamsburg	1·75	6	24	0·84	12	
QUEBEC—						
Bryson	0·51	1	26	0·26	17	
NEW BRUNSWICK—						
Point Escuminac	3·43	9	21	1·78	13	Aurora 26.
NOVA SCOTIA—						
Port Morien	3·06	8	22	0·96	3 4	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF SEPTEMBER, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria	.....	.....	0·09	0·25	0·32	0·36	0·36	0·48	0·5	0·51	0·51	0·54	0·42	0·18	.....	.....
Nanaimo	.....	0·03	0·12	0·34	0·39	0·48	0·44	0·47	0·45	0·48	0·49	·4	0·36	0·14	.....	.....
Agassiz	.....	.....	0·03	0·21	0·31	0·35	0·38	0·33	0·39	0·36	0·31	0·28	0·14	0·03	.....	.....
Battleford	.....	.....	0·16	0·32	0·33	0·46	0·56	0·50	0·47	0·59	0·51	0·46	0·33	0·22	0·03	.....
Indian Head	.....	.....	0·00	0·17	0·59	0·72	0·75	0·76	0·74	0·65	0·64	0·58	0·33	0·04	.....	.....
Brandon	.....	.....	0·03	0·49	0·60	0·68	0·69	0·74	0·70	0·73	0·74	0·64	0·53	0·28	.....	.....
Winnipeg	.....	0·01	0·20	0·60	0·70	0·66	0·71	0·72	0·67	0·64	0·71	0·64	0·47	0·10	.....	.....
Woodstock	.....	.....	0·06	0·43	0·58	0·69	0·73	0·70	0·69	0·72	0·71	0·66	0·50	0·09	.....	.....
Toronto	.....	.....	0·01	0·40	0·58	0·71	0·74	0·77	0·79	0·76	0·74	0·71	0·60	0·33	8	.....
Lindsay	.....	.....	0·21	0·43	0·52	0·65	0·76	0·69	0·71	0·69	0·65	0·57	0·50	0·37	0·05	.....
Barrie	.....	.....	0·22	0·57	0·65	0·70	0·70	0·70	0·70	0·78	0·74	0·66	0·65	0·27	.....	.....
Gravenhurst	.....	.....	0·20	0·40	0·63	0·54	0·60	0·69	0·70	0·75	0·75	0·72	0·71	0·40	0·06	.....
Kingston	.....	.....	0·14	0·44	0·54	0·68	0·67	0·72	0·76	0·76	0·73	0·68	0·51	0·09	.....	.....
Ottawa	.....	.....	0·06	0·26	0·42	0·48	0·53	0·57	0·62	0·62	0·64	0·52	0·43	0·05	.....	.....
Montreal	.....	.....	0·07	0·29	0·41	0·43	0·44	0·45	0·46	0·49	0·46	0·40	0·18	0·04	.....	.....
Quebec	.....	.....	0·05	0·26	0·28	0·29	0·36	0·31	0·40	0·41	0·36	0·34	0·33	0·03	.....	.....
Fredericton	.....	.....	0·21	0·38	0·49	0·53	0·50	0·55	0·52	0·47	0·42	0·39	0·30	0·24	0·03	.....

	Victoria.	Nanaimo.	Agassiz	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Barrie.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month. *(Constant sunshine being 1.)*	0·36	0·37	0·25	0·39	0·47	0·51	0·54	0·53	0·59	0·54	0·59	0·59	0·54	0·41	0·38	0·27	0·40
Difference from average	+0·05		0·06	0·06	+0·08	+0·08	+0·08	+0·04	+0·01	+0·02	+0·11	—	+0·03	−0·02	−0·15	—	−0·06
Maximum daily amount	0·91	0·83	0·71	0·80	0·73	0·87	0·84	0·83	0·90	0·91	0·93	0·93	0·88	0·82	0·92	0·82	0·94
Date	11	11	11	23	23	27	23	27	23	30	26	26	26	29	21	14	21
No. of days completely clouded	4	6	13	1	5	2	1	6	2	2	1	0	1	3	7	9	9

Aurora recorded : -

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Hillsdown, IV ; Haliburton, Montreal, I ; St. Peters, Albion, IV.

2. Aweme, IV ; Cape Chatte, II ; St. Peters, Albion, IV ; Montreal, III.

3. Aweme, I ; Hillsdown, III ; Deloraine, St. Peters, Albion, I.

4. Hillview, I ; Foxleigh, Hillsdown, IV ; Gray Hills, Grenfell, Midland, Georgetown, IV ; Edmonton, IV ; Rapid City, Madoc, IV ; Lucknow, IV ; Meaford, Savanne, Gravenhurst, III ; Renfrew, II ; Port Stanley, III ; St. Peters Albion, IV ; Haileybury III.

5. Aweme, III ; Georgetown, IV ; Kenora, III ; Edmonton, II ; Winnipeg, II; Minnedosa, II.

6. Winnipeg, II.

8. Hillview, IV ; Battleford, II.

11. Scarboro.

13. Rapid City, Haileybury, IV.

14. Scarboro.

17. Swift Current, IV.

18. Hillview, II ; Brandon, I ; Aweme, II ; Blackfalds, II ; Victoria, II ; Hillsdown, IV ; Knee Hill, Gray Hill, III ; Grenfell, Estevan, Threehills Creek, I ; Huntsville, III ; Emsdale, II ; Georgetown IV ; Westport, Cartwright, III ; Last Mountain, Clinton, N. Bruce, Lucknow, IV ; Clontarf, IV ; Gravenhurst, IV ; Renfrew, IV ; Prince Albert, I ; Battleford, II ; Lloydminster, III ; St. Peters, Calvin, Albion, I ; Haileybury, II.

19. Hillview, II ; Brandon, I ; Aweme, II ; Blackfalds, II ; Hillsdown, IV ; Pekisko, Gray Hill, IV ; Grenfell, Estevan, Threehills Creek, III ; Alameda, IV ; Moose Jaw, Chicoutimi, Meaford, Prince Albert, I ; Battleford, III ; Edmonton, II ; Medicine Hat, II ; Minnedosa, II ; Lloydminster, IV ; St. Peters, Calvin, Albion II.

20. Hillview, IV ; Aweme, III ; Huntsville, IV ; Emsdale, III ; Georgetown, IV ; Madoc, III; Kenora, III ; Bruce Mines, III ; Clontarf, IV ; Gravenhurst, IV ; Battleford, III ; Edmonton, II , Qu'Appelle, III ; Minnedosa, II ; Albion, IV ; Haileybury, III.

21. Last Mountain, Bruce Mines, Kenora, III ; Birnam, III ; Qu'Appelle, IV ; Haileybury, IV.

22. Qu'Appelle, IV.

23. Hillsdown, IV ; Rapid City, Minnedosa, III.

24. Rapid City, Kenora, III ; Prince Albert, I.

25. Hillsdown, IV ; Gray Hill, IV ; Threehills, IV ; Georgetown, IV , Lucknow, IV ; Prince Albert, I ; Montreal, IV ; St. Peters, Albion, IV ; Haileybury, II.

26. Hillview, III ; Aweme, II ; Hillsdown.III; Gray Hill, IV ; Grenfell, Estevan, Alameda, IV ; Chicoutimi, Point Escuminac, IV ; Georgetown, IV ; Deloraine, Cartwright, IV ; Kenora, II ; Port Dover, Halifax, IV ; Edmonton, II ; Port Stanley, III ; Quebec, III ; Montreal, III ; St. John, St. Peters, Albion, III.

27. Aweme, II ; Cape Chatte, II ; Georgetown, IV ; Edmonton, II ; Qu'Appelle, IV ; Winnipeg, II ; Minnedosa, II, Albion, I.

28. Aweme, III ; Cape Magdalene, Quebec, IV ; Minnedosa, III ; Haileybury, IV.

29. Cape Chatte, II ; Scarboro, Minnedosa, I.

30. Chicoutimi, Cape Magdalene, Georgetown, IV ; Gravenhurst, IV ; Father Point, II ; Quebec, III, Albion, II ; Truro, IV ; Haileybury, III.

Thunder recorded on :

1. Aweme, Almasippi, Belmont, Deloraine.

2. Midland, Westminster, Georgetown, Princeton, Lucknow, Brantford.

3. Aurora, Arden, Westport, Woodstock, London.

4. Smith's Falls, Westport, Beaver Hills W., N. Gower.

5. Blackfalds, Victora, Hillsdown, Knee Hill, Threehills Creek, Wetaskiwin, Westport, Beaver Hills W., Bruderheim, Madoc, Clontarf, Edmonton, Albion.

6. Summerside, Parrsboro', Arden, N. Gower, Pictou, Edmonton, St. John, Grand Manan. Lloydminster, Truro.

7. Aweme, Deloraine, Bermuda, New Westminister, Grand Manan.

8. Aweme, Morden, Oakbank, Almasippi, Hillview, Nelson, Thetis Island, Rossland, Belmont, Deloraine, Kenora, Stony Mountain, Vancouver, Winnipeg, Bermuda, New Westminister.

9. Albion.

10. Foxleigh, Summerside, Father Point.

11. Pincher Creek.

12. Haliburton, Rossland, Wyoming, Ursa, Huntsville, Emsdale, Westminister, Georgetown, Scarboro', Madoc, Sutton, Toronto, Uplands, Kinmount, Lakefield, Brantford, Port Dover, Port Hope, Paris, Beatrice, Lindsay, Gravenhurst, London, Port Stanley, White River, Rockliffe, Calvin.

13. Aweme, Oakdale Park, Chaplin, Foxleigh, Pekisko, Gleichen, Estevan, Threehills Creek, Alameda, Regina, Moose Jaw, Golden, Croydon, Arden, Deloraine, Naas Harbour, Macleod, Swift Current, Medicine Hat.

14. Oakbank, Hillview, Estevan, Belmont, Norquay, Last Mountain, Kenora, Haliburton, Swift Current, Calgary, Winnipeg.

15. Wyoming, Huntsville, Westminister, Dutton, Madoc, Port Burwell, N. Gower, Kinmount, Lakefield, Brantford, Birnam, Haliburton, Gravenhurst, Port Stanley.

16. Thetis Island, N. Nicomen, Rossland, Midland, Lion's Head, Arden, Clinton, Sutton, North Bruce, Lucknow, Meaford, Vancouver, Port Stanley, New Westminister.

17. Aweme, Morden, Almasippi, Hillview, Ursa, Huntsville, Emsdale, Belmont, Norquay, Madoc, Clinton, Uplands, Port Hope, Owen Sound, Minnedosa.

18. Oakbank, Aurora, Arden, N. Gower, Kenora, Stony Mountain, Winnipeg.

19. Wyoming, Ursa, Wiarton, Scarboro', Westport, Dutton, Port Burwell, Clinton, Toronto, N. Bruce, Lucknow, Cockburn Island, Lakefield, Brantford, Bancroft, Paris, Beatrice, Lindsay, London, Banff, Port Stanley, Saugeen, Massett, Calvin, Georgetown.

20. Brome, Huntsville, Croydon, Sutton, Kenora, Kinmount, Bermuda, Owen Sound, Halifax, Swift Current, Quebec.

21. Bruce Mines, Calvin, Haileybury.

22. Uplands, Calvin.

24. Golden, Rossland, Winter Harbour, Brome, Britannia Bay, Rivers Inlet, Vancouver, Ottawa.

25. Aweme, Oakdale Park, Deloraine, Kenora, Pictou, Charlottetown, Albion.

26. Vancouver.

28. Wyoming, Birnam, London, Port Stanley.

29. Sutton, Vancouver, Port Stanley, Grand Manan, Port Simpson.

30. Almasippi.

FORECASTS FOR SEPTEMBER, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1313. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Alberta	85	62	19	4	84·1
Saskatchewan	90	61	21	8	79·4
Manitoba	91	67	17	7	83·0
Lake Superior	117	89	20	8	84·6
Lower Lake Region	125	107	17	1	92·4
Georgian Bay	123	105	13	5	90·6
Ottawa Valley	106	98	7	1	95·7
Upper St. Lawrence	105	97	7	1	95·7
Lower St. Lawrence	114	92	17	5	88·2
Gulf	125	99	22	4	88·0
Maritime Provinces, West	116	99	14	3	91·4
Maritime Provinces, East	116	97	15	4	90·1
Total	1313	1073	189	51	88·9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
28th October, 1905.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

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Monthly Weather Review.

VOL. XXIX. OCTOBER, 1905. No. 10.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

In British Columbia the weather was unusually cool, frosts occurring almost daily after the 6th on the upper mainland and frequently after the 15th on the lower mainland and islands. Much rain was recorded, more especially during the first week, also from the 11th to 17th and 22nd to 24th; there were, however, many fine days and the proportion of bright sunshine exceeded the average. Over the upper mainland the trees were practically bare by the 31st, but in districts further westward they still retained much of their foliage.

The weather in the North-West Provinces was comparatively mild up to the 15th, but low temperatures at night prevailed generally throughout the month. On or about the 18th temperatures below zero were recorded at several stations. The dates of precipitation and the amounts varied considerably with the district but falls were recorded generally on or about the 9th, 13th, 17th and 25th, the total amount exceeding the average at most places. The proportion of bright sunshine was much below the average and the sky was mostly overcast. High winds were frequent and altogether the weather of the month was exceedingly unpleasant.

In Manitoba the weather was not quite so cold as in the North-West Provinces, nevertheless the mean temperature was below the average, and during the second half of the month low temperatures generally prevailed. On or about the 28th zero or below was recorded at many places. The precipitation which was light occurred chiefly on or about the 1st, 10th, 17th, 23rd and 25th to 29th, and included snow in most localities on these dates. Much cloudiness prevailed and the proportion of bright sunshine was considerably below the average.

The weather in Ontario though finer than usual was unsettled and wet on the 2nd, 3rd, 11th to 13th, 16th to 21st and 23rd, the total precipitation exceeding the average at most places. Although the nights were cold and light frosts were frequent throughout the month the day temperatures up to the 11th often exceeded 80° in western counties and 70° in eastern districts. After this date however cooler weather prevailed generally, and from the 20th to 31st it was quite cool. An unusally heavy gale occurred on the 20th, causing many wrecks and loss of life on the Great Lakes. Another heavy though less disastrous gale was recorded on the 31st. Thunder was reported from many places on the 11th and 19th, and after the latter date light snow was occasionally recorded at some stations. After the second week the leaves were falling rapidly but on the 31st many trees still retained portions of their foliage.

In the Province of Quebec the weather was exceedingly fine during the first half of the mon h, but somewhat dull during the second half. Rain was recorded at most places on or about the 3rd, 12th, 19th to 21st and 31st, and although it exceeded the average in Montreal and Quebec it was generally below elsewhere. Quite mild weather prevailed up to the 16th when there was a mark d fall in the temperature and frosts occurred almost daily after this date. Some trees still retained their leaves on the 31st.

The weather in New Brunswick was exceptionally fine and dry throughout the greater portion of the month, the proportion of bright sunshine being considerably above the average and the rainfall much below. Precipitation occurred at most stations on or about the 13th, 19th, 20th and 25th. From the 1st to 5th the maximum temperature was 70° or over in some districts and the weather was quite mild until after the 21st when it became cooler and frosts were frequent at night up to the 31st.

In Nova Scotia the weather was somewhat similar to that in New Brunswick, it being exceedingly fine and dry ; it was on the contrary, however, comparatively cool, more especially during the last week when there was little sunshine Precipitation occurred on or about the 14th, 19th to 21st and 25th it being generally quite heavy on the 21st. Frosts were noted almost daily after the 22nd.

The weather in Prince Edward Island was unusually fine and dry, the precipitation which occurred on or about the 12th, 13th, 19th to 21st, 25th and 27th being in the aggregate much below the average ; and the weather, though mild up to the 20th, was comparatively cool after that date. During the last week frosts were frequent and severe.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure for October exceeded the average throughout Canada, except over the eastern portion of New Ontario where a slightly subnormal value occurred. Departures from normal were greatest over Alberta and British Columbia ranging from − 0·05 of an inch at Banff, Alta., to + 0·17 of an inch at Barkerville, B.C.

BRIGHT SUNSHINE.

The bright sunshine recorded during October exceeded the average in British Columbia, and from Ontario to the Maritime Provinces, elsewhere it was deficient. In the North-West Provinces the negative departures were, in most districts, large, and in some places almost equalled the values recorded.

HIGH AREAS.

Eight areas of high pressure were traced during the month, the larger number being of considerable energy. Two of the areas were first observed as far north as the Yukon Territory both afterwards passing southwards into the North-west States. Two others were first observed in Manitoba while the remainder apparently moved into the continent from the Pacific Ocean ; Nos. 6 and 7 which prevailed between the 23rd and the 30th were probably the most pronounced areas of the series both attended by almost unseasonably cold weather.

LOW AREAS.

During the month thirteen areas of depression were charted : seven first appeared in the north-western portion of the continent ; three in the western portion, and three in the south-western portion.

The general path pursued by the areas was either over or to the northward of the Lake Region thence into the Gulf of St. Lawrence and probably out to sea. The areas for the most part were not very energetic. Perhaps the two most important ones were Nos. 9 and 13 which caused the two heaviest gales of the month over the Lake Region ; No. 4 was responsible for the heavy gale on our Pacific Coast on the 6th, and later on between the 11th and 12th, in conjunction with No. 5 which had meanwhile travelled up from the Gulf of Mexico, gave the first heavy rain of the month in Ontario and Quebec.

WINDS.

In British Columbia on Vancouver Island and over the Mainland the direction was variable. The force was largely light or moderate, there being few days on which the winds reached a fresh or strong breeze and there was only one general gale.

In the North-West Territories the westerly direction predominated with nine days of strong and eleven of fresh breezes as well as six gales.

In Manitoba the westerly direction was also much in evidence, with ten days of strong and seven of fresh breezes and five gales.

In the Lake Region the direction was more variable, but favouring the westerly. There were nine days of strong and seven of fresh breezes and six gales. The gales occurred on the 11th, 15th, 18th, 20th, 23rd and 31st. The gale of the 20th was by far the heaviest of the series, seconded by that on the 31st. The remaining four storms were for the most part very moderate as well as local.

In the Ottawa and Upper St. Lawrence Valleys the directions conformed to those which prevailed on the Lakes, but there were fewer days of strong breezes and fewer gales than in the former region.

In the Lower St. Lawrence Valley and the Gulf the westerly direction prevailed with seven days of strong and thirteen of fresh breezes and five gales, the gales occurring on the 5th, 8th, 14th, 17th and 21st ; those of the 14th, 17th and 21st being the most severe.

In the Maritime Provinces the direction was for the most part northerly to westerly, with nine days of strong and ten of fresh breezes and two moderate gales occurring on the 4th and 21st, the former being only felt locally.

The gales on the Lakes were successfully warned, but a cautionary warning issued on the 25th to Lakes Superior and Erie was not justified by subsequent dangerous winds; also in the St. Lawrence Valley and the Gulf the gales of the 8th and 17th were not warned.

TEMPERATURE.

The mean temperature of October did not differ much from the average in Ontario, Quebec and the Maritime Provinces, but from Manitoba westward the month was colder than average; the negative departures from the mean temperature were between 2 and 3 degrees in Manitoba and from 4 to 7 degrees in Saskatchewan, Alberta and British Columbia, except quite near the Coast in Southern Vancouver Island where the departure was only about 2 degrees.

The highest and Lowest temperatures in each Province during October, 1905, were :

British Columbia,	70° ·1 on	20th at Alberni,	—5° ·0 on 18th at Nickel Plate.
N. W. Provinces,	85° ·0 on	5th at Medicine Hat,	—9° ·5 on 18th at Kneehill.
Manitoba,	78° ·0 on	8th at Winnipeg,	—6° ·0 on 25th at Portage la Prairie.
Ontario,	87° ·0 on	8th at Cottam,	—3° ·0 on 29th at Savanne.
Quebec,	80° ·0 on	2nd at Brome,	15° ·0 on 30th at Brome.
New Brunswick,	81° ·0 on	1st at Chatham,	15° ·0 on 23rd at Sussex.
Nova Scotia,	74° ·0 on	5th at Halifax,	18° ·3 on 27th at Truro.
Prince Edward Island,	68° ·0 on	5th at Charlottetown.	22° ·0 on 25th at Summerside.

PRECIPITATION.

The precipitation was in excess of the average near the Coast in British Columbia and also over the larger part of Ontario, while in all other portions of Canada there was a deficiency, which was especially marked in the Maritime Provinces where the rainfall for the month was scarcely over a quarter of the average amount. In Manitoba and the other North-West Provinces the deficiency in precipitation was also pronounced, the whole amounting in most districts to considerably less than 1·0 inch, part of which was snow.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
BRITISH COLUMBIA—				in.	in.	in.	in.																																	
Victoria	48	24	123	19	85	30·11	30·52	29·14	1·38	57·7	7·5	14	58·0	15	33·5	19	10·3			6	4	186	216	66	37	40	56	91	44	7	744	7·8	37·3	5 SW	2·81	+0·73	0·66	14	15	0	0	2
Barkerville	53	2	121	35	4180	30·07	30·57	29·11	1·13	31·0	7·5	17	47·0	5	0·2	18	12·9			7	12	0	0	0	0	1	0	0	61	62				3·62	+1·13	0·70	13	18	0	0	0
Agassiz	49	14	121	31	52					45·2	3·6	16	62·0	13	24·0	19	22·1			4	0	30	0	0	0	39	0	24	0	0	93				8·42	+2·68	1·62	16	15	0	0	0
Port Simpson	54	34	130	26	26	29·99	30·45	29·17	1·28	45·1	2·1	20	54·3	3	30·5	18	8·6			7	10	1	8	27	12	9	0	3	2	0	62		15·8	3 SE	8·80	-3·62	1·27	21	7	0	0	0
Revelstoke	51	0	118	6	1476					38·6		6	54·0	12	18·0	18	12·5																5·43		1·33	15	16	0	0	0
Kamloops	50	41	120	29	1193	30·10	30·56	29·58	0·98	41·2	9·0	12	63·0	3	21·6	30	15·2			6	6	0	1	1	3	1	1	1	0	18	62		11·0	21 E	0·96	+0·50	0·21	8	21	0	0	2
Princeton	49	29	120	29	1650					37·6	6·9	11	59·0	3	11·0	31	21·2																									
Pilot Bay	49	39	116	55	2000																												1·58	+0·90	0·32	12	19	0	0	2
Rivers Inlet	51	39	127	19	20	30·09	30·51	29·32	1·19	43·9	1·0	11	55·9	10	27·2	18	10·2		91	6	7	1	1	16	21	0	1	1	0	46	93	1	IV	29 E	9·76	-2·27	1·17	19	12	2	1	0
Stuart's Lake	54	28	124	12	1800					33·0	3·6	12	55·0	21	1·7	11	23·1																1·30	-0·14	0·12	9	21	0	0	0
Coldstream	50	14	119	15	1246					40·3	4·7	10	61·0	3	16·0	18	16·1																1·52	+1·10	0·15	9	22	0	0	0
a Nanaimo	49	10	123	57		30·01	30·40	29·23	1·17	41·9		6	60·9	21	26·0	19	16·0		85	5	1											3·63	—	1·08	11	20	0	0	2
Chilliwack	49	10	121	57	21	30.11	30·52	29·38	1·14	45·6		7	60·1	10	26·0	19	15·8			6	7	6	13	37	11	7	8	4	7	0	93	5·6	22·7	6 W	8·39	—	2·05	16	15	0	0	3
Port Bobs	50	32	128	3						45·8	2·8	10	57·0	15	30·0	18	10·0					1	0	1	*4	0	6	8	11	0	31				11·82	-0·89	2·10	21	10	0	0	0
Nicola Lake	50	9	120	39	2120					37·1	7·5	10	56·0	25	12·0	18	18·1																1·03	+0·02	0·32	6	25	0	0	0
West Kootenay	49	20	117	50																																					
Garry Point	49	21	123	17						43·9	1·1	10	58·0	5	23·5	18	16·2					12	6	10	7	12	1	1	18	20	93	6·8	22·7	7 SE	3·04	0·11	0·71	12	19	0	0	1
Tobacco Plains	49	1	115	5	2681					39·5	1·7	10	61·1	5	12·0	18	14·1																2·39	+1·57	0·79	10	20	0	0	0
a Vancouver	49	17	123	5	136	30·13	30·52	29·31	1·21	41·2		1	60·0	30	29·9	18	16·7			5	5	1	3	15	7	2	12	2	0	20	62	3·2	23·5	6 S	1·98		1·17	16	11	0	0	11
New Westminster	49	13	122	54	330	30·11	30·54	29·27	1·27	41·5	6·1	12	59·5	10	21·6	19	16·6			5	7	2	5	21	0	0	9	0	3	22	62		10·7	6 NW	5·78	+0·16	1·89	15	16	0	0	0
Ladner	49	5	123	1						43·1		3	65·0	1	19·0	18	22·8																3·10	—	0·50	10	21	0	0	0
North Nicomen	49	12	122	2	59					46·2	1·6	12	60·0	10	26·0	19	15·6																9·86	+2·86	2·64	16	15	0	0	0
Quesnelle	52	59	122	30	1700					40·1	0·5	11	62·0	3	5·0	18	15·3																1·76	+0·90	0·73	8	22	0	0	0
Clayoquot	49	11	125	47	40					47·7	—	7	61·0	11	30·0	18	16·6																8·69	—	3·46	16	15	0	0	0
Cranbrook	49	30	115	50	2990																																				
Massett	53	58	132	9	30																																				
Bullion	52	45	121	55	2775					35·5		9	51·0	11	14·0	18	15·9																								
Bella Coola	52	40	126	51	150																												2·17	—	0·65	10	21	0	0	0
Cowichan	48	25	123	42	170					41·5		2	60·0	3	23·0	18	16·8																								
Nelson	49	30	117	25	1760					41·7		5	61·0	3	20·0	31	17·9																1·53	—	1·11	13	18	0	0	0
Okanagan Mission	49	52	119	29	1200					41·1		6	61·6	4	17·5	18	19·1																3·59	—	0·97	13	18	0	1	0
Alberni	49	20	124	51	200					48·0	3·9	11	70·1	20	29·9	18	25·1																1·18	+1·06	0·12	11	18	0	0	0
Kuper Island	48	54	123	38	40																												4·72	-1·03	1·18	13	18	0	0	0
Cape Scott	50	48	128	27						48·4	—	9	56·0	10	31·5	18	9·7																								
Glacier	51	14	117	29	4072					35·9	—	4	51·0	3	7·0	18	17·7																11·66	—	1·10	25	6	0	0	0
Golden	51	16	116	55	2550																																	0	2	0
Spence's Bridge	50	25	121	30	760																																			
Bamfield	48	50	125	9		30·06	30·40	29·41	0·99	42·8		3	58·7	15	29·6	31	15·8		86	4	5	0	0	0	25	8	0	21	3	33	93				1·71	—	0·70	7	21	0	0	0
Big Creek	51	40	123	0						32·5		2	57·0	11	-1·0	18	23·9																0·41	—	0·11	5	26	0	0	0
Nickel Plate	49	30	120	0	5400					37·3	—	2	51·0	10	5·0	18	13·8																2·05	—	0·63	11	17	0	0	0
Thetis Island	49	0	123	40						45·3		2	62·9	24	26·5	19	16·2																3·43	—	1·03	16	15	0	0	5
Hedley										39·6		2	59·0	6	15·0	18	20·6																1·02	—	0·43	8	23	0	0	0
Kitamaat	53	59	128	42						44·4	—	3	59·0	6	27·0	17	13·9					16	1	0	1	3	4	1	0	2	31				7·90	—	1·50	16	15	0	1	0
Rossland	49	5	117	48	3100					37·1	—	2	55·0	3	18·2	31	11·6																3·75	—	1·16	10	21	0	0	0
*Port Essington	54	9	129	55	10																																				
Atlin						29·99	30·74	29·26	1·48	31·2	—	1	19·0	20	9·5	17	12·2			7	9	1	22	3	3	19	5	0	3	3	62		8·0	21 SW	0·18		0·15	10	18	1	0	0
N. W. PROVINCES—																																								
Medicine Hat Sask.	50	1	110	37	2161	30·01	30·59	29·52	1·07	42·4	3·0	21	85·0	5	1·6	19	23·0			6	5	0	0	3	0	8	10	11	18	19	62		21·9	6 SW	0·13	-0·41	0·08	2	26	0	0	2
Edmonton Alta.	53	33	113	30	2158	29·97	30·60	29·44	1·16	36·4	5·1	22	60·0	10	2·0	19	19·5			6	3	3	3	6	2	11	4	9	12	9	62		16·0	17 NW	0·61	-0·07	0·35	9	19	1	0	0
Swift Current Sask.	50	20	107	45	2439	30·01	30·68	29·47	1·21	38·1	1·6	19	83·0	1	1·0	19	20·9			5	0	1	5	1	3	5	11	23	8	5	62		21·0	8 W	0·61	0·11	0·10	11	19	0	0	0
Qu'Appelle Sask.	50	30	103	47	2145	29·98	30·67	29·49	1·18	36·0	1·3	22	73·0	3	8·2	28	18·0			8	5	3	2	3	1	9	15	9	18	2	62		21·2	10 NW	1·51	+0·56	0·80	13	15	0	0	2
Calgary Alta.	51	2	114	2	3389	30·01	30·61	29·54	1·10	37·1	1·1	21	72·0	5	3·0	19	26·0			6	3	4	2	4	3	1	0	18	19	11	62		25·0	17 NW	0·31	-0·18	0·13	5	26	0	0	0
Prince Albert Sask.	53	10	106	0	1432	29·91	30·66	29·31	1·35	32·3	5·8	20	60·0	4	4·5	28	16·2			9	23	10	0	4	4	3	2	1	13	22	62		10·0	8 S	1·80	-1·03	0·60	7	20	1	0	0
Battleford Sask.	52	41	108	20	1620	30·03	30·78	29·16	1·32	34·9	-5·7	11	68·0	4	4·0	19	20·0			6	3	66	18	186	0	46	22	166	139	101	744	7·2	19·5	5 E	0·82	+0·34	0·61	7	18	0	0	0

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a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°			°		°																											
ONTARIO—*Con.*																																									
Brantford	43 10	80 21	750					47·1	— 0·9	25	81·0	1	19·0	28	21·2																		2·34	−0·16	0·77	4	27	0	0	9
Parry Sound	45 19	80 0	635	30·05	30·70	29·38	1·32	46 6	+ 0·8	29	80·1	1	19·0	29	18 6			6	6	64	67	50	140	59	130	77	114	13	744	8·8	20·0	16 SW	5·39	+1·51	1·17	13	16	0	1	0
Owen Sound	44 34	80 55	597					48·6	— 0·4	26	83·0	1	22·0	26	19·5					4	2	0	6	37	6	14	11	8	93				1·87	+1 77	1·54	9	22	0	0	1
Beatrice	45 8	79 20	806					41·0	+ 0·7	30	78·0	4	15·0	29	20·6			6	5	0	0	0	10	11	11	2	16	43	93	1	III	16 W	4·27	+0·64	1·71	11	20	0	1	0
Coldwater	44 38	79 40	600																																					
Gravenhurst	44 54	79 20	770					46·0	+ 0·5	31	79·0	1	15·0	29	19·5			5	2	12	2	12	8	26	13	10	6	4	93	II	V	20 SW	1·75	+1·14	1·12	13	15	0	1	0
Haliburton	45 1	78 28						42 5	— 1 5	18	85·0	1	12·0	26	24·3																		4·12	+1·51	1·28	11	20	0	0	0
*Point Clark	44 5	81 44	595																																					
Birnam	43 2	81 55	600					49·8	+ 1·1	21	77·7	8	26·9	26	15·7					1	4	4	4	8	15	5	16	5	62				4·22	+1·30	1·61	8	22	0	2	0
London	42 59	81 13	808	30·08	30·69	29·59	1·10	48·2	— 0·1	22	81·5	9	19·0	30	22·2	42·3	79	5	4	3	7	6	13	6	29	17	18	0	93				2·96	+0·11	0·76	11	15	0	0	0
Port Stanley	42 40	81 13	592	30·01	30·66	29·64	1·02	48·7	− 0·5	31	74·2	1	23·3	25	19·2	....		5	4	5	6	4	9	0	8	18	11	1	62	10·9	36·7	20 W	2·22	−0·63	0·59	11	19	0	1	7
Woodstock	43 8	80 47	980	30·08	30·60	29·49	1·11	48·0	+ 0·9	30	78·5	9	20·0	30	20·5		82	4	4	4	7	12	23	10	16	30	39	15	186	10·3	27·5	20 W	3·27	+0·23	1·05	11	20	0	0	0
Port Dover	42 47	80 13	635					48·0	— 1·6	30	71·2	1	21·3	29	15·9																		2·18	−0·16	0·54	9	2	0	1	0
Pelee Island	41 50	82 38	585					54 4	— 3·2	26	72·0	8	28·0	21	8·7																		1·43	−0·46	0·40	5	26	0	1	1
Paris	43 12	80 25	840					48·7	+ 0·3	16	84·0	2	14·0	30	31·6																		3·36	+0·44	0·77	10	21	0	2	0
Bancroft	45 1	77 50						43·8	+ 1·0	13	82·0	13	12·0	29	23·1																		3·10	+0·97	0·79	8	23	0	0	0
Rutherglen	46 15	78 18						42·1	— 0·6	10	83·0	1	10·2	29	24·2																		3·56	+0·69	1·02	8	20	0	1	1
Agincourt	43 47	79 16						47·7	— 1·1	10	85·0	1	22·0	26	20·2																		3·33	+0·18	1·16	5	26	0	3	0
Hamilton	43 16	79 54	103																																					
Port Hope	43 56	78 20						47·8	—	9	73·0	8	22·0	28	17·8																		4·05	+1·68	1·18	10	21	0	1	1
Kinmount	44 45	78 38						43·6	—	8	80·0	1	15·0	26	22·6																		3·46	—	1·10	10	21	0	0	1
Cockburn Island	45 57	83 18	610					46·0	—	8	80·0	1	22·0	26	17·8					5	3	3	10	10	11	7	12	1	62				3·10	—	0·85	11	20	0	2	0
Chatham	42 23	82 12	595					51·1	+ 1·0	19	80·0	9	24·0	26	17·0																		1·91	−0·63	0·76	5	26	0	0	0
Meaford	44 37	80 37						48·3	—	7	80·0	2	22·0	26	16·8					4	4	3	3	4	33	8	6	0	62				2·95	—	1·17	9	22	0	2	0
Listowel	43 44	80 58						45·9	—	8	79·0	1	19·0	25	20·8																		5·18	—	2·66	7	24	0	0	0
Bruce Mines	46 18	83 55	595					45·1	—	7	75·0	4	16·0	25	18·5																		2·93	—	0·88	13	18	0	0	0
Rat Portage (Kenora)	49 48	94 32	1102					38·7	—	6	74·2	8	8·0	24	13·9																		2·45	—	1·00	5	21	0	1	0
Sturgeon Falls	46 16	79 54																																						
Uplands	45 48	79 25						45·0	+ 2·3	20	83·0	1	3·0	29	31·4					3	1	2	1	14	0	10	0	0	31				3·04	−0·31	0·65	14	17	0	0	0
Toronto	43 40	79 21	350	30·08	30·68	29·55	1·13	48·5	+ 1 7	64	78·0	1	25·2	29	17·1	43·6	79	5	1	96	43	99	20	80	133	147	105	30	711	8·0	25·9	20 SW	3·48	+1·08	0·96	10	17	0	2	2
Welland	42 59	79 17	425					50·1	+ 0·1	20	86·0	1	23·0	29	19·2																		2·45	+0·04	0·98	8	23	0	0	0
Peterborough	44 17	78 19	722					45·4	— 1·3	35	82·0	1	11·0	29	21·6																		3·01	−0·52	0·80	7	23	0	0	3
Lindsay	44 20	78 45	872	30·03	30·63	29·52	1·11	47·5	+ 2 7	24	82·8	1	23 6	25	21·2			6	6	1	0	1	11	14	14	7	17	28	93	1			3·57	+0·95	0·91	13	17	0	1	3
Deseronto	44 11	77 4	264																																					
Lakefield	44 25	78 15						47·8	+ 1·6	21	83·0	2	23·0	26	17·5																		2·3	+0·10	0·87	6	25	0	1	0
Kingston	44 13	76 29	285	30·08	30·71	29·50	1·21	48·3	0·0	31	73·3	1	24·0	29	17·1			6	8	7	10	3	4	4	9	13	9	3	62	....	19·6	11 SW	3·87	+1·14	1·07	11	19	0	1	0
Clontarf	45 23	77 9						45·9	+ 1·2	18	82·8	1	9·5	26	21·9																		2·63	+0·36	0·62	6	23	0	0	0
Ottawa	45 26	75 42	291	30·02	30·68	29·45	1·23	46·5	+ 1·4	22	74·0	1	20·0	29	16·4			5	8	2	1	16	0	8	4	17	11	3	62	.....	IV	21 W	2·40	−0·13	0·84	12	18	0	0	1
Rockliffe	46 9	78 6	557	30·02	30·69	29·34	1·35	43·4	+ 0·1	28	83·0	1	11·0	29	21·5			6	8	0	0	2	0	1	0	7	0	52	62	.....	III	4 W	2·73	+0·26	0·85	9	21	1	0	4
*Sarnia	42 59	82 24	586					46·9	— 1·9	11	81·0	9	20·0	29	—					0	2	1	3	13	16	12	9	37	93				2·17	−0·23	1·01	4	27	0	0	1
Stratford	43 23	81 0	1191					48·8	+ 2·6	41	83·0	1	21·0	29	17·8																		4·56	+1· 5	2·25	3	28	0	0	0
Lucknow	43 56	81 30						47·7	+ 0·1	20	80·6	9	25·1	25	18·6																		7·32	+3·51	1·58	16	14	1	3	0
White River	48 35	85 16	1252	29·96	30·55	29 40	1·15	37·1	— 1·3	16	70·0	9	1·0	29	19·9			6	8	23	52	29	117	82	117	80	164	80	744	6·1	15·5	20 NW	3·06	+0·47	1·03	18	12	0	1	0
Port Arthur	48 27	89 12	641	29·99	30·65	29·43	1·22	40·3	− 0·6	25	77·0	7	10·0	24	17·0			6	7	73	7	0	59	91	108	165	218	20	744	5·8	9·6	20 SW	2·34	−0·34	0·56	12	15	0	0	0
Stony Creek	43 13	79 45	292					49·9	- 0·2	21	86·0	1	20·0	26	20·9			4	2	4	3	15	5	8	25	21	1	11	93	III	IX	20 W	3·39	+0·61	1·03	8	23	0	1	0
*Otonabee	44 20	78 18	671					47·2	— 1·9	10	79·0	1	24·0	29						2	1	7	12	0	34	13	24	0	93				1·95	−0·51	0·77	6	25	0	0	1
Windsor	42 20	83 4	625					51·2	— 0·1	32	79·0	1	27·0	29	17·1																		1·16	−0·89	0·45	6	5	0	0	0
Alton	43 51	80 5	1250					45·0	+ 0·8	19	85·2	1	14·3	30	23·1			3	1	6	1	10	4	21	6	13	2	0	93	II	V	20 W	4·31	+1·61	1·70	11	19	0	1	1
Guelph	43 33	80 16						48·0	+ 1·9	18	80·5	9	22·5	30	19·3					2	2	8	2	2	8	17	4	16	61				2·57	+0·16	1·01	7	25	0	0	3
*North Bruce	44 23	81 25						48·5	+ 1·3	18	83·0	9	25·0	26						7	2	8	9	31	12	12	12	0	93				4·84	+2·01	0·92	16	15	0	1	0
Collingwood	44 30	80 15	595					48·7	— 0·5	14	80·0	2	21·0	26	16·4																		3·75	+0·76	0·95	10	21	0	0	0
Rocklyn	44 28	80 36	1339																																					
Bala	45 0	79 30	740					47 6	+ 2·0	23	77·5	1	25·5	29	16·9					14	2	6	2	11	14	2	8	3	62				5·07	+1·45	1·72	13	15	0	1	0
Orillia	44 34	79 24	775																																					
Sangeen	44 30	81 21	656	30·06	30·66	29·45	1·21	49 0	+ 1·0	29	77·0	1	23·6	26	16·3			6	1	11	2	6	2	11	14	2	8	3	62				5·00	+1·86	1·28	16	14	0	3	0
St. Catharines	43 10	79 17																																						

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PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING OCTOBER, 1905.

STATION.	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date.	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Coquitlam	7·32	9	22	2·06	23-24					
Sumas River	1·95	16	15	1·13	24					
Sooke Lake	7·14	12	19	1·72	3					12 First ice.
Nanaimo	3·84	9	22	1·33	2					
Royal Oak	3·83	12	19	1·50	2					
Goldstream Lake	7·08	16	15	1·35	2					
Naas Harbour	7·69	15	16	1·50	11	*	1	*	18	
N. W. PROVINCES—										
Jumping Pound.. Alta.	0·2	1	26	0·21	8	3·8	4	1·8	13	
Duck Lake.....Sask.	0·65	5	19	0·15	6	1·0	7	1·0	20	
Last Mountain.. Sask.	—	—	30	—	—	*	1	*	9	
Dirt Hills.....Sask.	0·33	2	26	0·25	25	3·5	3	2·0	23	
Regina.....Sask.	0·25	1	25	0·25	12	4·5	4	2·0	18	
Herbert.....Sask.	0·32	4	22	0·06	13	2·7	5	1·6	28	
Beaver Hills W. ..Alta.	0·10	2	25	0·06	12	3·0	4	1·8	26	Fog 6, 7.
Coutts.....Alta.	—	—	28	—	—	3·0	3	3·0	16, 17	17 Blizzard.
Bruederheim.....Alta.	0·15	2	5	0·08	5	1·0	3	0·5	26	
Innisfail.....Alta.	0·23	1	27	0·23	7	0·8	3	0·5	27	
Lacombe.....Alta.	0·50	1	26	0·50	21	4·0	4	2·0	17	
Dawson.....Yukon.	0·39	2	—	0·27	8			8·0	21	
Insinger.....Sask.	—	—	30	—	—	1·0	1	1·0	19	
Stirling.....Alta.	0·45	1	26	0·45	8	6·0	2	4·0	16	
MANITOBA—										
Norquay	0·63	2	25	0·18	1	1·5	4	1·0	27	— 3 on 27th.
Gretna	0·21	1	27	0·21	25	*	3			
Cartwright..	0·18	3	—	0·15	25					
Beaver	0·36	1	—	0·36	25					
Rapid City	0·50	1	16	0·50	1	0·6	4	0·2	29	5 Aurora.
Belmont	0·32	2	23	0·23	1	*	6	*		
Deloraine	0·02	1	29	0·02	25	0·2	1	0·2	27	
ONTARIO—										
Wiarton	5·39	15	16	0·71	17					Thunder 15 17 19.
N. Williamsburg	3·00	5	24	1·14	19	*	2	*		
Wooler	3·67	9	22	1·28	11					
Parma	3·28	6	25	1·03	12					
Smiths Falls	1·60	5	25	0·74	11	0·5	2	0·5	30	
MacCue	2·68	6	23	0·92	11	1·0	2	0·5	30	
Lions Head	3·80	11	17	0·74	24	*	1	*	28	Thunder 15, 20.
Watford	1·23	5	—	2·27	18	*				
Huntsville	3·14	6	24	1·44	18	*	1		27	
Princeton	2·77	5	23	1·00	18	0·5	2	0·5	31	Thunder 18.
Ursa	2·71	9	22	1·05	18					
Meward's Bridge	3·99	11	20	1·24	19					
White Fish Pond	4·16	11	20	1·25	19					
Nashonsing Lake	3·66	11	20	1·11	19					
Turtle Dam	3·87	11	20	1·27	19					
Pinisi Bay	2·91	7	22	0·96	11	*	3	*		
Lake Talon	2·80	7	22	0·92	11	*	3	*		
Britannia Bay	2·25	11	19	0·55	31	1·0	2	1·0	31	
Arnprior	1·32	4	25	1·08	11	*	2	*		
Gower Point	3·13	6	25	0·95	19					
Fitzroy Harbour	1·75	4	26	0·92	11	*	1	*	31	
Nioskoque Lake	3·13	12	19	0·90	18					
Deer Park	3·32	7	24	0·96	18					
Dutton	0·63	2	29	0·55	19					
Ennismore	1·85	4	27	0·80	18					
Croydon	3·45	6	27	1·50	11					
Westport	3·02	6	23	1·23	11	1·2	2	0·7	31	
Montague	2·10	5	25	1·22	11	0·5	1	0·5	31	
Arden	3·50	14	17	0·99	12	*	1	*	29	
Sydenham	1·35	5	26	1·70	11					
Westminster	2·20	6	25	0·62	18	*	2	*		
Emsdale	3·63	15	15	0·72	18	*	1	*	31	
Goderich	2·70	8	23	0·50	2					
Aurora	3·59	9	22	1·33	18					Thunder 2.
Orangeville	4·71	9	22	1·56	19	*	2	*	28	
Midland	5·29	17	14	0·90	17	*	2	*		
Lansdowne	2·88	7	24	0·91	2					Thunder 2.
Georgetown	3·53	11	18	0·92	2	*	2	*	31	Thunder 20. Aurora 25
Wyoming	3·00	4	27	1·65	18					Thunder 2.
QUEBEC—										
Bryson	3·55	7	24	1·30	12					
NEW BRUNSWICK—										
Point Escuminac	0·62	6	25	0·35	19					

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF OCTOBER, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria			0·00	0·13	0·23	0·38	0·55	0·65	0·65	0·65	0·63	0·56	0·27	0·00		
Nanaimo			0·02	0·24	0·38	0·52	0·60	0·59	0·56	0·56	0·55	0·53	0·22	0·00		
Agassiz			0·00	0·03	0·38	0·49	0·45	0·48	0·46	0·41	0·36	0·31	0·03	0·00		
Battleford			0·01	0·14	0·25	0·33	0·39	0·39	0·43	0·41	0·34	0·19	0·00	0·00		
Indian Head			0·00	0·03	0·22	0·33	0·35	0·40	0·43	0·45	0·34	0·31	0·09	0·00		
Brandon			0·00	0·01	0·42	0·45	0·49	0·44	0·50	0·58	0·52	0·38	0·00	0·00		
Winnipeg			0·01	0·25	0·35	0·40	0·37	0·39	0·37	0·29	0·26	0·22	0·00	0·02		
Woodstock			0·00	0·22	0·45	0·45	0·55	0·56	0·51	0·48	0·41	0·38	0·32	0·04		
Toronto			0·00	0·21	0·56	0·64	0·61	0·59	0·63	0·56	0·50	0·45	0·33	0·05		
Lindsay			0·07	0·27	0·40	0·44	0·44	0·52	0·48	0·46	0·46	0·43	0·40	0·13		
Barrie			0·04	0·31	0·44	0·54	0·52	0·53	0·51	0·51	0·49	0·40	0·28	0·00		
Gravenhurst			0·16	0·52	0·51	0·50	0·54	0·48	0·49	0·49	0·48	0·46	0·44	0·15		
Kingston			0·05	0·45	0·56	0·62	0·65	0·65	0·59	0·55	0·47	0·45	0·33	0·07		
Ottawa			0·03	0·29	0·43	0·55	0·62	0·64	0·69	0·63	0·49	0·11	0·17	0·00		
Montreal			0·02	0·33	0·51	0·55	0·64	0·58	0·66	0·63	0·52	0·41	0·08	0·00		
Quebec			0·00	0·10	0·55	0·61	0·59	0·62	0·64	0·58	0·55	0·58	0·36	0·01		
Fredericton			0·04	0·39	0·55	0·72	0·76	0·71	0·75	0·78	0·72	0·64	0·60	0·07		

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Barrie.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month. *(Constant sunshine being 1.)*	0·43	0·44	0·31	0·27	0·27	0·37	0·25	0·40	0·46	0·41	0·41	0·48	0·50	0·45	0·52	0·50	0·62
Difference from average	+0·08	—	+0·02	−0·21	−0·11	−0·02	−0·13	+0·01	+0·03	+0·01	+0·07	—	+0·10	+0·10	+0·11	—	+0·19
Maximum daily amount	0·92	0·91	0·81	0·80	0·77	0·77	0·90	0·90	0·90	0·97	0·90	0·97	0·94	0·88	1·00	0·89	0·95
Date	30	30	27	21	31	8	7	7	6	7	6	6	25	6	25	26	22
No. of days completely clouded	5	6	8	4	10	2	11	9	5	6	4	4	5	5	1	5	3

Aurora recorded :

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

4. Rivers Inlet.

5. Threehills Creek, Savanne, Rapid City, Rivers Inlet, Atlin, IV.

6. Chaplin, White Horse.

8. St. Peters, Haileybury, III.

13. Rockliffe, IV ; Haileybury, III.

16. Fredericton, III.

17. Cape Chatte, III ; Chicoutimi, Truro, II.

21. Haileybury, III.

24. Hillsdown, IV ; Haileybury, IV ; Truro IV.

25. Lucknow, IV ; Georgetown, IV ; Quebec, IV ; Haileybury, III.

26. Chicoutimi, Father Point, III.

27. St. Peters, Aweme, II.

28. Edmonton, II ; Minnedosa, I ; Haileybury, IV.

29. Albion, IV.

Thunder recorded on :

1. Winter Harbor, Point Clark.

2. Westport, Aurora, Lansdowne, Georgetown, Wiarton, Wyoming, Lakefield, Agincourt, Owen Sound, Birnam, Meaford, North Bruce, Clinton, Kitamaat, Kingston, Port Stanley, Rivers Inlet, Lindsay, Winter Harbor, Alton.

3. Sutton, Winter Harbor.

4. Father Point, Winter Harbor.

5. Nelson, Bullion, Foxleigh, Winter Harbor.

8. Kenora, Summerside, Pictou.

11. Lucknow, Clinton, Bullion.

13. Arden.

15. Lion's Head, Scarboro, Emsdale, Wiarton, Cockburn Island, Bruce Mines, Agincourt, Paris, Toronto, White River, Saugeen, Parry Sound.

16. Father Point, Fredericton.

17. Midland, Wiarton.

18. Princeton, Beatrice, Birnam, Meaford, Lucknow, Saugeen, Gravenhurst.

19. Midland, Wiarton, Agincourt, Port Dover, Paris, Lucknow.

20. Lion's Head, Westport, Arden, Scarboro, Georgetown, Rutherglen, Stony Creek, Clontarf, Bala, Lucknow, Toronto, Saugeen.

23. Golden.

25. Golden, Winter Harbor.

30. Bermuda.

31. Bermuda.

FORECASTS FOR OCTOBER, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1300. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Alberta	83	56	13	11	74·1
Saskatchewan	86	64	13	9	82·0
Manitoba	87	71	9	7	86·8
Lake Superior	116	85	22	9	82·7
Lower Lake Region	122	106	9	7	90·6
Georgian Bay	122	100	16	6	88·5
Ottawa Valley	104	89	12	3	91·3
Upper St. Lawrence	104	89	12	3	91·3
Lower St. Lawrence	119	87	20	12	81·5
Gulf	121	83	18	20	76·0
Maritime Provinces, West	118	96	16	6	88·1
Maritime Provinces, East	118	94	17	7	86·9
Total	1300	1020	177	103	85·3

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
28th November, 1905.

Results of Observations at Blacklead Island, Baffin's Bay—Latitude, 65° 0′ N. ; Longitude, 66° 12′ W. Height above Sea, 50 feet.

Month.	Temperature.						Wind Directions from									Rain.		Snow.				
	9 a.m.	1 p.m.	9 p.m.	Mean.	Highest.	Lowest.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Amount.	Days.	Amount.	Days.	Gale.	Fog.	Aurora.
																In.		In.				
June, 1904	37·7	52·8	36·1	42·2	84·5	29·0																
July, 1904	10·4	46·3	10·4	42·4	88·0	32·0	1	3	0	0	47	3	0	3	36	2·64	15	*	1	4	13	0
August, 1904	37·6	39·4	35·3	37·4	49·0	32·0	1	0	0	4	60	0	1	7	20	4·50	20	*	2	4	21	0
September, 1904	30·0	34·5	28·4	31·0	47·0	20·0	12	0	2	0	12	0	0	19	45	0·25	3	2·2	7	0	3	4
October, 1904	16·3	19·3	15·7	17·1	31·0	2·5	16	7	2	4	13	3	6	13	29	0·00	0	2·0	4	6	9	1
November, 1904	15·2	18·2	16·0	16·5	31·0	—11·0	38	1	0	1	33	0	0	2	15	0·00	0	—	15	4	2	0
December, 1904	— 5·1	— 4·2	— 6·4	— 5·3	15·0	—26·0	41	2	0	0	22	6	3	2	17	0·00	0	—	9	1	0	0
January, 1905	—13·3	—12·1	—12·1	—12·5	7·0	—36·0	39	8	0	0	15	0	0	6	25	0·00	0	—	6	5	3	0
February, 1905	— 4·0	— 0·7	— 5·1	— 3·3	18·0	—24·0	30	0	0	2	21	0	0	2	29	0·00	0	—	6	2	0	0
March, 1905	— 2·6	2·8	— 6·8	— 2·2	26·0	—19·0	38	0	0	2	5	0	0	12	36	0·00	0	—	10	3	7	0
April, 1905	34·2	40·7	24·9	33·3	66·0	6·0	13	5	0	7	36	0	0	0	29	0·00	0	—	13	2	9	2
May, 1905	38·0	51·3	26·0	38·4	73·0	11·0	35	2	0	0	22	0	0	1	33	0·00	0	—	7	5	8	0
June, 1905	42·4	51·8	37·9	45·0	83·0	28·0	19	5	0	2	20	0	0	3	11	0·18	2	—	8	5	5	0
July, 1905	57·3	67·6	43·1	56·0	91·0	32·0	7	0	0	2	37	0	0	2	33	0·63	6	—	—			

* From readings of Ordinary Thermometer.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. NOVEMBER, 1905. No. 11.

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

Over the greater portion of the mainland and Islands of British Columbia precipitation was of frequent occurrence on or about the 2nd, 3rd, 8th to 18th and 26th to 30th, and although less frequent over the upper mainland the dates of unsettled weather were similar. Much bright sunshine was recorded during the first ten days, also from the 19th to 25th, and the proportion for the month exceeded the average. Somewhat mild weather prevailed and although frosts at night were frequent on the upper mainland they were only occasionally recorded on the lower mainland and Islands. In the western portion of the Province fogs occurred on many days: during the last week, however, the weather was fair and cold, and sleighing was possible in some districts.

In the North-West Provinces the weather was exceedingly mild, more especially from the 1st to 16th in Alberta and 8th to 16th in Saskatchewan when the maximum temperature frequently exceeded 50°. The nights, however, were comparatively cold throughout the month, and from the 26th to 30th temperatures below zero were recorded generally. In most districts the weather was fair during the first three days, also from the 7th to 18th and last two days, the intervening periods being unsettled. The precipitation, which was chiefly snow, was mostly light but at some stations in Alberta it exceeded the average. On the 30th the ground was barely covered with snow.

The weather in Manitoba was exceptionally mild and in most districts it was unusually dry. In some localities flurries of snow were frequent but they were generally light, the falls of importance occurring only about the 4th, 15th and 23rd to 28th. Much cloudiness prevailed but the proportion of bright sunshine did not depart appreciably from the normal. Hard frost occurred almost every night and on the last three or four days temperatures below zero were recorded. On the 30th the ground was only lightly covered with snow.

In Ontario although showers of rain or snow were frequent in most places, more especially during the first ten days, also from the 13th to 18th and 25th to 30th, the amount of precipitation was considerably below the average in eastern and northeastern counties, and about average elsewhere. Much bright sunshine occurred during the intervening periods and was excessive throughout the Province. In most districts the maximum day temperatures were generally between 30° and 40° in the eastern and northern portion, and somewhat higher elsewhere. Frosts occurred almost every night after the 13th, and zero was recorded at a few places on or about the 30th. High winds were frequent and gales were general on or about the 1st, 15th, 25th and 29th, much damage to shipping being reported on the latter date.

In the Province of Quebec the weather was mostly unsettled up to the 17th, and light showers of rain and snow were of frequent occurrence. After this date fine weather prevailed to the 25th when light showers were again recorded up to the 29th. Bright sunshine in the aggregate somewhat exceeded the average and the precipitation was less than usual. The mean temperature was slightly below the average, but although the nights were generally cold it was comparatively mild each day. On the 30th the ground had only a light covering of snow.

The weather in New Brunswick was somewhat similar to that in Quebec, the departures from the normal conditions being unimportant. Mostly clouded skies with occasional showers of rain or snow were general up to the 17th, also on or about the 28th or 30th; the intervening periods were comparatively fine and the proportion of bright sunshine for the month somewhat exceeding the

average. Mild days with low temperatures at night express the general temperature conditions, and on the nights of the 14th and 15th zero or below was recorded at many places. High winds were frequent and gales were reported on the 15th, 17th, 28th and 30th. On the 30th the ground was bare excepting in the extreme north where there was a light covering of snow.

The weather in Nova Scotia was mostly showery on or about the 2nd, 5th, 7th to 10th, 14th, 17th and 18th and 27th to 30th, much bright sunshine occurring during the intervening periods. Although the mean temperature was slightly below the average and the nights were somewhat cold, it was generally mild during the day. Fresh winds prevailed and on five occasions they increased to gales. On the last day of the month the ground was bare of snow.

In Prince Edward Island although showers were frequent up to the 18th, sunshine intervened and there was much fine weather after the 18th and up to the 29th. Few storms were recorded, and on or about the 16th and 17th when the temperature exceeded 50°, at some places the conditions were almost springlike. After the latter date the weather turned somewhat colder, but on or about the 25th it was again exceedingly mild. On the 30th the ground was practically bare of snow only scattered traces being reported.—F. F. Payne.

BAROMETRIC PRESSURE.

The mean barometric pressure for November was in excess of average in British Columbia and below average in the rest of the Dominion and in Newfoundland. The maximum excess, 0·12 of an inch, occurred at New Westminster, and the maximum deficiency, 0·14 of an inch, at Prince Albert.

HIGH AREAS.

Eight areas of high pressure were charted during the month; three first appearing in the northwestern portion of the continent and five in the western portion. Nos. 6 and 7 were the most pronounced of the series: they passed over Canada between the 28th and the end of the month and were both accompanied by decidedly cold weather.

LOW AREAS.

Fifteen areas of low pressure were traced during the month: nine first appeared in the northwestern portion of the continent, two in the western, three in the southwestern, and one off the middle Atlantic United States Coast. The mean path of the areas was over or to the northward of the Lake Region, thence either into the Straits of Belle Isle or across the Maritime Provinces. Many of the areas were of marked energy and frequently noticeable for the heavy gales by which they were accompanied.

No. 8 which first appeared to the northward of Alberta on the 13th and afterwards traversed Canada to the Gulf of St. Lawrence gave a gale of much severity, it being especially severe in the Maritime Provinces and the Gulf of St. Lawrence; Nos. 12 and 13, one first appearing in Alberta, the other in the West Pacific States after uniting in Dakota caused a very heavy gale over the Lakes on the 24th, and No. 15 which was shown in the Pacific States on the 25th, passed over the Lakes to the Maritime Provinces between the 28th and 29th likewise attended by very severe gales.

WINDS.

In British Columbia, on Vancouver Island and over the mainland the direction was variable. Fresh winds were of frequent occurrence but strong breezes or gales seldom occurred except along the Coast where they were more often experienced.

In Alberta and Saskatchewan the direction was chiefly southerly to westerly with nine days with strong and fourteen with fresh breezes and three gales.

In Manitoba the west and south directions were likewise the most general, with ten days with strong and nine with fresh breezes and three gales.

In the Lake Region the direction was almost altogether between the northwest and southwest, with eight days with strong and nine with fresh breezes and seven gales, the latter occurring on the 1st, 3rd, 6th, 13th, 15th, 24th and 28th, the three last being the most severe.

In the Ottawa and Upper St. Lawrence Valleys the direction was also northwesterly to southwesterly, with ten days with strong and eight with fresh breezes and six gales.

In the Lower St. Lawrence Valley and the Gulf, the westerly direction was the most in evidence, with nine days with strong and nine days with fresh breezes and five gales, the latter being experienced on the 1st to the 2nd, on the 13th, from the 16th to the 18th, on the 25th, and from the 29th to the 30th.

In the Maritime Provinces the north and west directions predominated. There were five days with strong and twelve with fresh breezes and five gales: the latter occurring between the 1st and 2nd, the 5th, the 13th, from the 16th to the 18th, and from the 29th to the 30th.

The gale in the Lake Region on the 3rd, and that in the Maritime Provinces on the 5th both being moderate and local were not warned, but all the other gales wherever occurring were successfully warned, many of the storms being of great violence.

TEMPERATURE.

The mean temperature of the month differed widely from the average in Manitoba and the North-West Provinces, the departure being as much as 12 degrees in excess over the northern portions of Alberta and Saskatchewan and lessening to an excess of about 6 degrees in the more southern districts. On the lower mainland of British Columbia and Vancouver Island the departure was in excess of the average by 1 or 2 degrees. From the Great Lakes to the Maritime Provinces differences from average were nowhere announced, averaging about 1 degree below over most of Ontario and Quebec, and from 1 to 2 degrees above in the Maritime Provinces.

The Highest and Lowest temperatures in each Province during November, 1905, were :

British Columbia,	67° ·1 on 12th at Alberni,	—21° ·0 on 29th at Big Creek.
Alberta,	72° ·8 on 14th at Lethbridge,	—28° ·5 on 29th at Pekisko.
Saskatchewan	66° ·0 on 12th at Gatesgarth,	—30° ·0 on 27th at Fond-du-Lac.
Manitoba,	63° ·0 on 11th at Morden & Minnedosa,	—31° ·0 on 30th at Almassippi.
Ontario,	70° ·0 on 3rd at Hamilton,	—33° ·0 on 30th at White River.
Quebec,	58° ·6 on 24th at Sherbrooke,	— 2° ·0 on 30th at Shawinigan Falls.
New Brunswick,	58° ·0 on 25th at St. Stephen,	—13° ·0 on 15th at Sussex.
Nova Scotia,	61° ·0 on 26th at Wolfville,	1° ·0 on 15th at Truro.
Prince Edward Island,	54° ·0 on 25th at Charlottetown.	8° ·5 on 28th at Summerside.

PRECIPITATION AND DEPTH OF SNOW.

The precipitation in Vancouver Island and all the western portions of British Columbia was very light, being but a small fraction of the average. Further east, however, at the higher levels it was average or a little in excess, and this was also the case in western Alberta. From eastern Alberta to western Manitoba, where it was mostly in the form of snow, there was a general deficiency, but to the eastward of this again as far as the neighbourhood of Lake Huron there was an excess which was most marked in eastern Manitoba. In the western portions of the peninsular of Ontario, where it was part rain and part snow, it was nearly average, but in the more northern and eastern districts it was deficient, the largest departures occurring in the Ottawa Valley. In Quebec there was a very general small deficiency, while in the Maritime Provinces the precipitation, mostly in the form of rain, was very nearly average.

At the close of the month there was a light covering of snow over the more northern and eastern portion of the North-West Provinces and also over most of northern Ontario, while in other parts of the Dominion the ground was either bare or nearly so.

BRIGHT SUNSHINE.

Bright sunshine was in excess of average throughout the greater part of the Dominion ; two stations, Winnipeg and Lindsay, recording a deficiency of 3 per cent. The maximum excess of average was 15 per cent at Toronto. The amount of sunshine ranged between 20 per cent at Nanaimo, B.C., and 38 per cent at Fredericton, N.B.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1905.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																								
BRITISH COLUMBIA:—																																										
Victoria	48 21	123 19	85	30·03	30·48	29·16	1·02	44·8	+ 0·6	44	59·2	12	27·9	28	8·5			8	12	163	211	80	47	35	51	61	59	10	720	7·9	19·6	3 SW	0·91	−5·97	0·35	11	12	0	0	7
Barkerville	53 2	121 35	1180																																						
Agassiz	49 14	121 31	52					42·0	+ 2·1	46	62·0	11	20·0	28	19·7			3	0	33	0	0	0	12	0	15	0	0	90				2·51	3·63	0·42	11	19	0	0	0
Port Simpson	54 34	130 26	26	29·87	30·41	29·07	1·34	42·5	+ 3·3	20	56·3	7	16·2	30	7·8			7	13	4	4	26	8	12	0	4	2	0	60		17·1	27 S	11·02	−0·77	1·02	23	7	0	0	0
Revelstoke	51 0	118 6	1176					31·3			59·0	17	10·0	28	7·2																		2·73		0·53	13	17	0	0	0
Kamloops	50 41	120 29	1193															7	13	0	0	46	90	16	1	11	181	369	720	1·9									0	0	0
Princeton	49 29	120 29	1650					31·6	+ 0·3	40	54·0	17	5·0	28	16·1																		0·38		1·84	6	21	0	0	7
Pilot Bay	49 39	116 55	2000																																						
Rivers Inlet	51 39	127 19	20	29·98	30·48	29·39	1·09	41·1	+ 1·5	12	59·4	13	20·9	28	7·8	93	7	10		7	3	13	21	0	7	1	0	38	90				21·11	+3·16	2·91	19	10	0	2	2
Stuart's Lake	54 28	124 12	1800																																						
Coldstream	50 14	119 15	1246					33·7	−		59·2	3	3·0	28	12·7																		1·15		0·35	6	21	0	0	0
a Nanaimo	49 10	123 57		29·94	30·36	29·11	0·92	42·7	−		58·9	12	24·0	28	9·6	91	7	11		3	2	3	17	3	5	6	13	38	90	4·1	16·0	18 SE	3·81		0·56	11	15	0	0	6
Winter Harbour	49 10	131 57	21	30·03	30·50	29·61	0·89	42·2	−		63·1	8	20·0	28	15·5	85	6	9		6	15	29	18	11	17	2	2	0	90				1·77	−	0·81	12	18	0	0	6
Chilliwack	49 32	121 58	3					44·2	+ 2·7	10	59·0	12	22·0	26	9·0					4	0	0	8	3	4	3	8	8	30				17·82	−0·60	2·80	23	7	0	0	0
Midway	49 0	118 16	1800																																						
Nicola Lake	50 9	120 39	2120					33·3	+ 2·6	10	59·0	16	− 4·0	28	17·2																		0·20	−1·01	0·15	2	28	0	0	0
West Kootenay	49 20	117 50																																							
Garry Point	49 21	123 17						40·9	− 0·5	10	59·5	11	20·6	28	13·7					4	8	26	5	3	1	8	11	18	90	7·6	25·3	17 SE	3·29	3·95	1·01	9	21	0	0	1
Tobacco Plains	49 1	115 5	2684				1	32·5	− 0·1	10	56·1	17	0·0	29	11·2																		1·11	−0·55	0·40	1	25	0	0	2
a Vancouver	49 17	123 5	136	30·06	30·51	29·59	0·92	41·8	−		62·7	12	20·3	28	12·3	92	7	11		0	0	17	4	5	15	3	0	16	60				1·26		1·32	15	11	1	0	8
New Westminster	49 13	122 54	330	30·04	30·48	29·53	0·95	42·0	+ 0·1	12	60·1	12	19·0	28	12·4		6	11		1	3	22	2	0	6	1	2	23	60		7·3	17 SE	1·52	−1·37	1·15	13	16	0	0	0
Ladner	49 5	123 1						43·1			59·0	14	21·0	28	20·4																		2·50		0·78	13	17	0	0	3
North Nicomen	49 12	122 2	59					43·1	+ 0·7	12	64·0	8	22·0	28	13·3																		1·71	−7·61	1·14	12	15	0	0	0
Quesnelle	52 59	122 30	1700					32·3	+ 3·1	10	59·0	11	−15·0	28	12·4																		2·03	+1·03	0·40	10	19	0	0	0
Clayoquot	49 11	125 47	10					46·7			65·0	9	30·5	26	11·8																		16·06		5·59	15	15	0	0	2
Cranbrook	49 30	115 50	2900																																						
Massett	53 58	132 9	30																																						
Bullion	52 15	121 55	2775					52·2	−		55·0	15	− 8·0	28	11·0																		3·37		0·6	12	18	0	0	0
Bella Coola	52 40	126 51	150																																						
Cowichan	48 25	123 42	170					41·9	−		59·8	12	21·1	28	12·3																		3·08		0·84	16	11	0	0	0
Nelson	49 29	117 21	1760					36·3	−		54·0	6	11·0	28	11·8																		2·75		1·15	1	19	0	0	0
Matsqui	49 7	122 16																																							
Okanagan Mission	49 52	119 29	1200					35·2	−		63·4	4	10·0	29	15·4																		0·75	−	0·25	9	19	0	0	0
Alberni	49 15	124 49	200					44·1	+ 2·0	11	67·1	12	22·9	28	17·9																		8·50	−2·78	1·18	17	13	0	1	0
Kuper Island	48 54	123 38	10																																						
Cape Scott	50 48	128 27						45·0			61·0	8	27·6	28	7·6																		17·16		2·9	22	8	0	0	0
Glacier	51 14	117 29	4072					25·6	−		38·0	18	2·0	28	14·4																		3·30	−	0·98	12	18	0	1	0
Golden	51 16	116 55	2350					29·4			49·0	18	1·0	28	13·2																								0	0	3
Spence's Bridge	50 25	121 30	760																																						
Bamfield	48 50	125 9		29·99	30·41	29·41	1·03	41·0	−		59·0	2	30·0	1	9·7			5	8	0	3	0	11	7	0	28	1	37	90				2·86		1·50	10	20	0	0	0
Big Creek	51 40	123 0						28·0			62·0	11	−21·0	29	21·5																		3·04		1·19	8	22	0	0	0
Nickel Plate	49 30	120 0	5400					30·8			54·0	12	−9·0	28	23·4																		1·15		0·10	7	23	0	0	2
Thetis Island	49 0	123 40						41·7	−		60·1	12	24·8	25	11·0																		3·13	−	0·77	17	13	0	0	6
Hedley								33·8	−		54·0	20	8·0	27	16·1																		0·73	−	0·55	7	23	0	0	3
Kitamaat	53 59	128 42						39·2			52·0	22	8·0	29	10·3					8	0	1	12	2	1	0	1	5	30				13·70	−	3·29	13	12	0	0	0
Rossland	49 5	117 48	3400					31·5	−		48·0	11	7·0	28	10·5																		3·03		0·80	9	21	0	0	8
*Port Essington	54 9	129 55	10					40·3			51·5	7	17·0	30																			22·95	−	2·12	22	9	0	0	0
Atlin				29·82	30·07	29·06	1·01	30·4	−		54·0	8	− 5·0	29	9·4			7	10	5	13	3	10	22	1	1	3	2	60		10·0	25 NW	1·55		0·25	12	17	0	0	0
YUKON:—																																								
Dawson	64 4	139 20	1100																																						
White Horse	60 45	135 0	2075					27·7	−		56·0	9	−11·0	29	14·8																		1·20	−	0·50	5	5	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. NOVEMBER, 1906.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroræ.	No. of thunder storms.	No. of fogs.
MANITOBA *Con.*	° ′	° ′		in.	in.	in.	in.	°	°		°		°																												
Birtle	50 25	101 1	1703	.....	.....	.....	.....	25·2	—	2	56·0	11	—23·0	30	20·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·00	.....	1·00	1	29	0	0	0
Carman	49 31	98 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pierson	49 11	101 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virden	49 51	100 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cypress River	49 33	99 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oakdale Park	49 11	100 18	.....	.....	.....	.....	.....	37·1	—	2	68·0	16	— 4·6	25	13·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ONTARIO																																								
Haileybury	47 29	79 39	687	29·95	30·71	29·14	1·60	25·8	— 1·2	12	47·9	24	— 9·2	30	12·4	.....	.....	9	20	3	1	4	3	8	5	9	19	8	60	11	IV	13 NW	2·17	0·39	0·50	1	9	0	0	0
Savanne	48 55	90 18	1506	.....	.....	.....	.....	19·9	+ 0·5	19	43·0	11	—29·0	30	16·8	.....	.....	.....	.....	0	4	2	4	1	10	1	8	60	90	10·3	.....	.....	2·87	+1·31	1·10	5	24	2	0	1
*"Cottam."	42 7	82 15	606	.....	.....	.....	.....	35·6	3·4	13	55·0	12	14·0	11	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·18	1·57	0·55	3	27	0	1	0
Brantford	43 10	80 21	750	.....	.....	.....	.....	31·4	1·8	22	59·0	28	8·0	30	16·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·03	+0·59	1·25	2	28	0	1	0
Parry Sound	45 19	80 0	635	29·96	30·76	29·20	1·56	31·7	1·3	29	50·0	24	— 1·0	30	15·0	.....	.....	.....	.....	84	42	32	99	32	203	38	189	1	720	.....	22·9	15 SW	1·81	+0·70	0·91	16	10	0	0	0
Owen Sound	44 34	80 55	597	.....	.....	.....	.....	34·7	+ 0·1	26	54·0	24	8·0	30	10·9	.....	.....	.....	.....	5	1	2	12	30	15	3	17	5	90	.....	.....	.....	3·82	+0·46	0·61	18	12	0	0	0
Beatrice	45 8	79 20	806	.....	.....	.....	.....	29·5	— 1·3	30	48·0	29	6·0	30	15·4	.....	.....	7	12	2	0	0	7	5	11	5	19	10	90	1	III	1 W	3·1	+0·63	0·5	11	19	0	0	0
Coldwater	44 38	79 40	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gravenhurst	44 54	79 20	770	.....	.....	.....	.....	31·1	— 2·1	34	49·0	24	— 1·0	30	13·9	.....	.....	7	5	11	1	1	7	19	14	15	9	5	90	III	V	1 W	1·97	1·19	0·47	10	17	1	0	0
Haliburton	45 1	78 28	.....	.....	.....	.....	.....	26·9	4·7	18	47·0	25	— 7·0	30	17·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·6	1·29	0·80	6	22	0	0	0
*Point Clark	44 5	81 44	595	.....	.....	.....	.....	37·4	+ 0·2	35	54·0	23	12·0	2	.....	.....	.....	4	0	28	3	7	6	29	3	16	4	0	90	.....	.....	.....	4·67	+1·74	3·02	5	25	0	0	0
Birnam	43 2	81 55	600	.....	.....	.....	.....	35·8	— 0·3	22	55·3	24	1·5	21	12·3	.....	.....	.....	.....	10	0	2	1	7	13	8	18	1	60	.....	.....	.....	2·57	— 1·18	0·68	9	20	1	1	0
London	42 59	81 13	808	30·02	30·84	29·30	1·54	34·9	2·1	22	56·0	29	4·5	30	16·5	81	5	6	1	6	1	4	2	28	21	24	0	90	11	III	1 NW	3·50	— 0·70	0·65	12	11	0	1	0
Port Stanley	42 40	81 13	592	30·05	30·80	29·35	1·45	36·1	— 1·5	31	51·0	24	9°	30	15·6	.....	.....	6	7	3	4	2	5	1	9	22	14	0	60	.....	32·0	15 SW	2·97	0·19	1·02	14	14	0	1	3
Woodstock	43 8	80 47	980	30·01	30·85	29·32	1·53	34·4	1·2	30	56·0	29	9·0	30	16·5	.....	90	6	4	15	12	45	62	13	275	122	130	46	720	13·7	30·0	21 SW	1·99	— 0·87	0·67	8	22	0	0	0
Port Dover	42 47	80 13	635	.....	.....	.....	.....	37·2	— 1·0	30	57·0	11	14·1	11	13·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·16	+0·39	0·78	11	16	0	0	0
Pelee Island	41 50	82 38	585	.....	.....	.....	.....	31·3	—	26	41·5	25	21·4	7	8·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paris	43 12	80 25	810	.....	.....	.....	.....	36·4	0·6	16	58·0	29	9·1	22	27·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·31	—1·05	0·74	10	21	0	0	0
Bancroft	45 1	77 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rutherglen	46 15	78 18	.....	.....	.....	.....	.....	27·5	— 1·8	11	47·8	24	— 5·2	30	12·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·63	—0·92	0·58	13	17	0	0	0
Agincourt	43 47	79 16	.....	.....	.....	.....	.....	34·7	— 0·6	10	3°	25	11·0	30	11·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·92	1·03	0·96	5	25	0	1	0
Hamilton	43 16	79 51	403	.....	.....	.....	.....	39·2	+ 1·8	25	70·0	3	10·0	30	14·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Hope	43 56	78 20	.....	.....	.....	.....	.....	33°	—	9	50·0	29	7·0	30	13·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·84	—	1·25	9	21	0	0	0
Kinmount	44 45	78 38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cockburn Island	45 57	83 18	610	.....	.....	.....	.....	33·9	—	8	54·0	24	0·0	30	12·5	.....	.....	.....	.....	9	5	5	5	3	19	6	8	0	60	.....	.....	.....	2·39	—	0·58	12	18	1	0	1
Chatham	42 23	82 12	595	.....	.....	.....	.....	36·7	1·6	19	58·0	28	18·0	2	13·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·61	0·27	0·94	7	23	0	0	0
Meaford	44 37	80 37	.....	.....	.....	.....	.....	34·1	—	7	53·0	25	11°	30	12·5	.....	.....	.....	.....	6	2	2	5	0	27	9	9	0	60	.....	.....	.....	2·60	—	0·55	16	11	0	0	0
Listowel	43 44	80 58	.....	.....	.....	.....	.....	34·1	+ 0·7	10	49·0	13	0·0	30	12·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5·30	+1·72	1·32	6	24	0	0	0
Bruce Mines	46 18	83 55	595	.....	.....	.....	.....	31·5	—	7	50·0	24	13·0	30	12·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·49	0·46	12	18	1	0	0	0
Rat Portage (Kenora)	49 18	91 32	1102	.....	.....	.....	.....	25·8	—	7	56·3	10	17·0	29	14·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·41	—	0·61	5	25	1	0	4
Sturgeon Falls	46 16	79 54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Uplands	45 48	79 25	.....	.....	.....	.....	.....	27·3	1·9	20	59·0	6	— 9·5	30	22·9	.....	.....	.....	.....	6	0	5	1	16	3	28	1	0	60	.....	.....	.....	2·94	0·70	0·49	16	14	0	2	0
Toronto	43 40	79 24	350	29·99	30·82	29·31	1·51	36·0	0·3	61	54·0	11	12·7	3	13·5	.....	77	6	4	50	28	31	21	41	263	119	119	12	720	11·6	23·3	15 SW	1·76	1·24	0·81	11	15	0	1	0
Welland	42 59	79 17	425	.....	.....	.....	.....	36·4	1·0	20	55·0	25	12·0	14	15·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·88	1·11	0·46	12	18	0	0	0
Peterborough	44 17	78 19	722	.....	.....	.....	.....	30·6	4·0	31	50·0	25	7·0	21	14·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·0	+0·12	0·60	10	20	0	0	0
Lindsay	44 20	78 45	872	29·97	30·73	29·36	1·37	31·9	1·0	23	51·9	12	5·0	21	15·3	.....	.....	.....	.....	7	0	3	2	13	11	15	13	23	90	1	V	24 W	3·11	0·15	0·43	14	16	0	1	0
Deseronto	44 11	77 1	261	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lakefield	44 25	78 15	.....	.....	.....	.....	.....	31·1	1·6	22	49·0	28	3·5	30	12·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·77	+0·15	0·61	11	19	0	0	0
Kingston	44 13	76 29	285	30·01	30·75	29·39	1·36	35·3	0·8	31	52·6	24	8·5	14	11·1	.....	.....	7	10	1	8	2	1	2	18	11	11	0	60	.....	27·5	15 SW	2·96	0·06	0·74	15	11	0	0	0
Clontarf	45 23	77 9	.....	.....	.....	.....	.....	31·1	— 0·8	18	50·3	25	1·0	30	15·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·26	—0·37	1·20	8	19	0	0	0
Ottawa	45 26	75 42	294	29·94	30·70	29·39	1·31	31·6	— 0·2	23	52·0	25	6·0	30	12·6	.....	.....	7	12	1	0	8	7	4	11	13	11	2	60	.....	.....	.....	1·60	—0·79	0·48	13	14	0	0	0
Rockliffe	46 9	78 6	557	29·96	30·80	29·30	1·50	28·3	0·8	28	47·0	21	— 7·0	30	15·2	.....	.....	8	18	0	0	4	0	0	2	4	2	18	60	.....	IV	28 E	1·80	—0·65	0·50	12	11	0	0	1
*Sarnia	42 59	82 24	586	.....	.....	.....	.....	33·3	— 3·4	11	56·0	28	12·0	30	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·18	1·38	0·73	4	25	0	0	0
Stratford	43 23	81 0	1191	.....	.....	.....	.....	33·1	— 1·6	40	51·0	28	8·0	30	13·5	.....	.....	.....	.....	2	1	3	1	23	17	6	6	31	90	.....	.....	.....	3·85	+0·27	2·11	5	25	0	0	0
Lucknow	43 56	81 30	.....	.....	.....	.....	.....	33·5	— 2·0	20	56·7	29	10·4	30	13·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4·17	—0·16	0·69	15	12	0	1	1
White River	48 35	85 16	1252	29·93	30·80	29·05	1·75	22·9	+ 0·7	16	41·5	21	—33·0	30	13·3	.....	.....	8	18	61	36	45	64	57	68	162	161	64	720	5·6	15·0	24 W	3·53	+0·45	1·38	20	6	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1905.*

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observ'tn	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	Direction of wind from. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
NOVA SCOTIA *Continued.*																																								
a Pictou	45 42	62 44	...	29·67	30·16	28·78	1·38	35·1	2·9	27	58·1	25	9·1	15	16·4	....	....	7	2	3	4	5	8	0	15	16	30	2	83	11	IV	18 S W	1·39	+1·11	1·51	15	13	1	0	0
Port Hastings	45 39	61 22	15					37·1	−1·6	11	55·0	17	24·0	11	10·1	....	....	....	....	5	2	6	1	0	2	9	14	0	39	..	..	..	6·52	+2·99	2·77	5	25	0	0	0
*Whitehead	45 15	61 8	20					38·8	0·7	22	50·0	17	27·0	15		....	....	....	....	10	9	7	6	4	17	19	17	1	90	..	..	..	3·36	−0·98	1·35	6	21	0	0	3
*Sable Island, E. Point	43 58	59 46	35					....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sable Island, M. Station	43 57	60 6	25					....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Parrsboro'	45 23	64 19	40					33·5	—	9	57·0	25	2·5	14	17·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·85	....	1·70	12	18	0	0	0
Wolfville	45 7	64 20	28					37·6	....	8	61·0	26	6·0	15	16·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·54	....	1·65	11	16	0	0	0
Bridgetown	44 49	65 16	20					....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Windsor	44 59	64 6	90					36·3	—	3	59·0	26	5·5	15	15·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·11	....	1·29	13	17	0	0	0
P. E. ISLAND																																							
Charlottetown	46 14	63 10	38	29·88	30·39	28·97	1·42	35·7	+0·1	30	51·0	25	10·5	15	12·2	....	....	7	15	5	110	10	81	2	211	16	283	2	720	10·0	18·3	18 W	6·12	+2·09	2·18	17	10	0	0	0
Hamilton	46 25	63 18	....					34·1	....	8	52·0	26	12·0	16	11·1	....	....	....	....	2	6	2	3	1	5	15	1	0	30	..	..	..	1·13	....	1·42	11	19	0	0	0
Summerside	46 18	63 51	....					33·6	....	6	49·0	25	8·5	28	13·5	....	....	....	....	0	3	0	2	1	7	3	14	0	30	..	..	..	3·97	....	1·75	6	24	0	0	0
NEWFOUNDLAND—																																							
St. John's	47 34	52 42	125	29·76	30·26	29·11	1·12	37·8	+1·0	33	63·0	2	17·0	17	13·0	....	....	7	12	18	1	0	3	13	3	16	3	0	60	....	26·3	15 S	6·52	+0·87	1·08	16	12	0	0	0
*Channell	47 37	59 9	50					35·1	−0·1	20	48·0	3	20·0	16	8·4	....	....	8	15	5	7	5	12	0	1	32	17	1	90	III	VII	18 W	8·10	+2·00	2·00	8	11	0	0	1
*Cape Norman	51 38	55 52	....					....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Amour Point	51 28	56 51	....					....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Point Rich	50 42	57 25	....					31·0	−1·2	21	47·0	18	10·0	29	—	....	....	....	....	1	13	11	12	11	10	25	1	0	90	....	....	....	2·68	−0·71	0·60	11	19	0	0	0
BERMUDA—																																							
Prospect	32 17	64 30	151	30·05	30·42	29·71	0·71	69·0	+0·9	11	79·0	1	60·0	23	9·6	....	....	6	0	3	11	2	2	2	12	1	4	23	60	....	21·6	17 N W	5·50	+1·11	0·72	20	8	0	2	0

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING NOVEMBER, 1905.

STATION.	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date.	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Naas Harbour	12·51	16	14	2·03	11	.....		.....		
Hartley Bay	27·68	24	5	2·50	15	0·5	1	0·5	29	
Nanaimo	3·36	8	19	1·11	29	6·0	3	4·0	28	
Sooke Lake	3·63	10	19	1·09	19	1·0	1	1·0	29	
Somas River	8·13	10	17	3·54	11	3·5	3	3·2	28	
Royal Oak	1·57	8	21	0·53	18	0·5	1	0·5	1	
Goldstream Lake	3·40	11	15	1·36	17	10·0	4	4·0	28	
Coquitlam	4·07	9	21	0·91	16	..	1	..	28	
ALBERTA—										
Jumping Pound	0·09	1	24	0·09	23	10·3	5	9·5	26	
Lacombe	0·0	0	26	0·00	0	3·0	4	1·5	24	
Innisfail	0·16	1	23	0·16	6	6·7	5	3·3	27	
Coutts	0·00	0	26	0·00	0	12·0	5	12·0	25-28	
Bruederheim	0·07	1	27	0·07	22	1·0	2	0·5	20	
SASKATCHEWAN—										
Last Mountain	0·03	1	28	0·03	8	3·0	1	3·0	25	
Regina	0·25	1	23	0·25	7	6·5	4	3·0	30	
Insinger	0·25	1	24	0·25	7	2·0	3	1·0	24	
Duck Lake	0·0	0	27	0·00	0	2·3	3	2·0	23	
Herbert	0·91	3	24	0·20	25	5·0	3	2·0	25	
Beaver Hills W	0·05	2	23	0·05	27	3·8	5	2·5	27	
MANITOBA—										
Rapid City	0·20	2	11	0·10	18	4·3	3	3·0	27	Aurora 28th.
Gretna	0·41	3	24	0·26	23	13·5	4	8·0	28	30th—30·0.
Belmont	0·07	2	25	0·04	18					
Norquay	8.	0	24	R.	16	14·0	4	7·0	27	
Cartwright	0·23	3	24	0·20	23	5·0	2	5·0	27	30th 27·0.
Deloraine	0·02	1	22	0·02	18	2·5	1	1·0	27	
ONTARIO—										
Goderich	1·80	6	20	0·50	6	6·5	5	2·0	28	
Georgetown	2·16	8	14	0·99	29	4·0	6	2·6	28	Aurora 26th.
Aurora	1·45	6	19	0·67	28	6·7	7	3·3	28	Thunder 28th.
Orangeville	1·31	3	17	0·96	6	11·2	10	2·5	1	
Ennismore	1·11	3	23	0·50	29	13·0	4	6·0	9	
Wooler	1·90	7	19	0·57	6	5·0	4	2·0	28	
Midland	2·71	12	15	0·65	9	7·3	4	3·0	28	
Croydon	3·70	4	21	0·90	29	4·5	5	2·0	28	
Westport	2·14	9	17	0·78	7	5·0	7	1·5	17	Thunder 26th.
Parma	2·25	7	21	0·87	29	6·0	4	2·0	14	
Montague	2·16	7	23	0·68	2	0·5	1	0·5	28	
Lansdowne	1·40	4	24	0·49	28	3·0	2	2·0	17	Thunder 25th, 28th.
MacCue	1·60	7	21	0·80	29	1·6	3	1·0	3	
Arden	2·39	13	16	0·69	29	4·0	3	2·0	6	Thunder 27th.
Sydenham	2·90	5	24	0·90	27	5·0	3	2·0	15	
Wyoming	3·15	6	19	1·00	29	*	3	*		Thunder 29th.
Princeton	2·14	7	21	0·79	28	4·0	2	2·0	9	Thunder 28th.
Ursa	1·50	3	23	0·85	22	12·0	5	5·0	15	
Dutton	2·87	7	21	0·92	5	1·0	2	1·0	7	Thunder 25th.
Watford	2·96	3	—	1·91	28			5·0	6	
Huntsville	2·68	4	20	1·25	24	14·0	6	5·0	28	Thunder 29th.
Deer Park	1·27	6	21	0·49	6	1·0	3	1·0	30	
Odell	2·26	7	19	0·76	28	3·0	4	3·0	7	
Emsdale	1·70	9	14	0·65	4	11·7	6	3·5	16	Thunder 21st.
Smiths Falls	0·61	4	21	0·38	7	5·0	4	2·0	1	
Wiarton	3·17	11	17	0·90	7	12·0	5	1·5	6	
Mewards Bridge	0·60	2	22	0·31	21	15·0	6	5·5	6	
White Fish Pond	0·81	2	22	0·42	26	16·1	6	5·7	6	
Nasbonsing Lake	0·51	2	22	0·30	24	15·0	6	5·5	6	
Turtle Dam	0·77	2	22	0·41	26	16·2	6	5·8	5	
Pinisi Bay	0·51	3	14	0·21	26	12·9	13	3·0	6	
Lake Talon	0·51	3	14	0·21	26	9·9	13	3·0	6	
Arnprior	1·73	7	19	0·61	7	1·3	4	1·3	29	
Gower Point	0·08	1	23	0·08	26	15·8	6	4·0	6	
Fitzroy Harbour	1·17	5	24	0·75	8	5·0	2	5·0	6	
Kioshkoqui Lake	0·32	2	15	0·32	25	12·1	13	2·7	7	
QUEBEC—										
Bryson	0·18	3	21	0·10	4	5·0	6	2·0	6	
NEW BRUNSWICK—										
Point Escuminac	2·39	8	19	0·97	16	4·2	3	2·1	27	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF NOVEMBER, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria				0·03	0·18	0·28	0·26	0·38	0·36	0·34	0·28	0·14	0·07			
Nanaimo				0·04	0·10	0·16	0·18	0·25	0·26	0·32	0·28	17	0·01			
Agassiz				0·00	0·15	0·31	0·42	0·38	0·38	0·37	0·26	0·15	0·02			
Battleford				0·03	0·06	0·26	0·35	0·40	0·49	0·42	0·48	0·35	0·14			
Indian Head				0·00	0·06	0·28	0·31	0·33	0·31	0·36	0·35	0·13	0·00			
Brandon				0·00	0·14	0·29	0·39	0·43	0·40	0·47	0·41	0·32	0·10			
Winnipeg				0·10	0·29	0·35	0·35	0·35	0·40	0·42	0·35	0·19	0·00			
Woodstock				0·05	0·29	0·43	0·41	0·47	0·47	0·46	0·36	0·33	0·12			
Toronto				0·03	0·23	0·45	0·51	0·48	0·49	0·44	0·39	0·35	0·09			
Lindsay				0·02	0·16	0·21	0·27	0·31	0·30	0·31	0·28	0·21	0·07			
Barrie				0·02	0·21	0·27	0·31	0·31	0·22	0·29	0·27	0·23	0·02			
Gravenhurst				0·13	0·31	0·34	0·35	0·29	0·31	0·32	0·34	0·32	0·21			
Kingston				0·12	0·31	0·43	0·48	0·52	0·51	0·48	0·46	0·36	0·19			
Ottawa				0·10	0·26	0·31	0·36	0·41	0·43	0·44	0·38	0·21	0·05			
Montreal				0·02	0·10	0·23	0·30	0·43	0·36	0·34	0·31	0·14	0·00			
Quebec				0·04	0·23	0·29	0·27	0·21	0·27	0·28	0·25	0·22	0·04			
Fredericton				0·08	0·38	0·44	0·42	0·53	0·50	0·41	0·37	0·32	0·14			

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Barrie.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·25	0·20	0·27	0·34	0·24	0·32	0·31	0·35	0·37	0·22	0·22	0·31	0·40	0·31	0·31	0·23	0·38
Difference from average	+0·06		−0·09	+0·03	0·00	0·00	0·03	+0·10	+0·15	−0·03	+0·02	—	+0·09	+0·01	−0·02	—	+0·05
Maximum daily amount	0·81	0·76	0·77	0·84	0·78	0·87	0·89	0·93	0·91	0·93	0·89	1·00	0·95	0·87	0·89	0·92	0·96
Date	27	23	8	15	10	29	9	21	30	30	21	30	18	20	18	30	19
No. of days completely clouded	9	14	9	6	16	8	15	9	5	10	8	7	8	9	13	12	10

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

4. Cartwright, Gray Hill, IV ; Albion, III ; Bermuda.

5. Threehills Creek, III ; Albion, IV.

10. Aweme, II.

11. Bermuda.

12. Minnedosa, I.

13. Threehills Creek, III ; Foxleigh.

14. Gray Hill, III ; Chaplin, Cape Chatte, Threehills Creek. III ; Grenfell, Foxleigh, Moose Jaw, Alameda, Quebec, IV ; Grand Manan, IV ; St. John, IV.

15. Rapid City, Gray Hill, IV ; Chaplin, St. Peters, Morden, II ; Aweme, I ; Hillview, II ; Sydney, I ; Threehills Creek, III ; Grenfell, Moose Jaw, Savanne, Swift Current, IV ; Qu Appelle, IV ;

16. Gray Hill, IV ; Chaplin, Bruce Mines, III ; Albion, II ; Medicine Hat, II ; Winnigeg, II ; Minnedossa, I.

17. St. Peters, Aweme, III ; Hillview, II ; Savanne ; Coc's Reef, IV.

20. Gray Hill. IV ; Threehills Creek, IV ; Moose Jaw, Albion, IV.

21. Grenfell, Truro, III ; Grand Manan, IV ; Pictou, III.

23. Albion, IV ; Vancouver, IV ; Qu'Appelle, IV.

26. Georgetown, IV ; Albion, III ; Truro, IV ; Gravenhurst, IV; Victoria, Alt. II.

27. Birnam, III ; Winnipeg, III.

28. Rapid City.

Thunder recorded on :

16. Athalmur.

18. Rivers Inlet.

19. Alberni, Rivers Inlet.

25. Uplands, Lansdowne.

26. Westport, Smith's Falls.

27. Arden.

28. Cottam, Brantford, Clinton, Madoc, Uxbridge, Scarboro, Birnam, Port Dover, Georgetown, Agincourt, Lansdowne, Princeton, Dutton, Wiarton, Toronto.

29. Stony Creek, N. Bruce, Wallaceburg, Uplands, Wyoming, Deer Park, Lindsay, London, Guelph, Port Stanley.

FORECASTS FOR NOVEMBER, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1317. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Alberta	81	61	12	5	86·4
Saskatchewan	84	61	18	5	83·3
Manitoba	92	68	17	7	83·2
Lake Superior	119	97	14	8	87·4
Lower Lake Region	124	95	25	4	86·7
Georgian Bay	124	93	24	7	84·7
Ottawa Valley	115	85	25	5	84·8
Upper St. Lawrence	115	86	27	2	86·5
Lower St. Lawrence	119	96	15	8	87·0
Gulf	116	86	23	7	84·0
Maritime Provinces, West	111	92	16	6	87·7
Maritime Provinces, East	111	89	14	11	84·2
Total	1317	1012	230	75	85·6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th December, 1905.

Erratum.—October Weather Review, page 121, under Black Head Island, the word "night" in head of temperature column should read "Highest."

DEPARTMENT OF MARINE AND FISHERIES, CANADA.

METEOROLOGICAL SERVICE.

Monthly Weather Review.

VOL. XXIX. DECEMBER, 1905. No. 12.

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather in British Columbia was somewhat milder and drier than usual. Over the lower mainland and islands dull weather prevailed with frequent rain during the first week ; and from the 16th to 21st and 23rd to 30th rain was general, the intervening periods being comparatively fine. In this portion of the Province day temperatures between 40° and 50°, and night temperatures between 30° and 40° prevailed, light frosts occurring frequently at most places. Over the upper mainland much cloudy weather and showers of rain or snow were general throughout the greater portion of the month, short intervals of bright sunshine only occurring on or about the first three days and from the 8th to 13th, 20th to 23rd, 27th, 29th and 31st. In this portion of the Province the temperature was mostly between 30° and 40° during the day and very much lower at night, zero or below being reported from some places on or about the 1st, 21st, 30th and 31st. High winds were of frequent occurrence along the coast and several severe gales were recorded.

In the North-West Provinces the weather was exceedingly mild, more especially from the 3rd to 5th, 9th, 10th and 13th to the 30th when 40° was exceeded almost daily at many places in Alberta. Temperatures much below zero were recorded at many stations on or about the 1st to 3rd, 21st, 22nd and 28th to 31st ; and in some districts these low temperatures at night were more frequent. In most localities the precipitation was quite light and at some places not any was recorded ; the falls of snow reported occurred on or about the 1st, 8th, 19th, 22nd and 27th. Much bright sunshine was general, excepting in the vicinity of Battleford where it was slightly below the average.

The weather in Manitoba, which was unusually mild, was exceedingly fine in western districts, but somewhat dull in the eastern portion ; and the precipitation which at most places was below the average occurred on or about the 1st, 8th, 11th, 21st to 25th and 30th. From the 4th to 27th the temperature frequently exceeded 30° during the day but the nights were cold and the daily range of temperature was high. Zero or below was recorded somewhat frequently at most stations.

In Ontario the weather was exceedingly mild throughout the greater portion of the month, the only cold periods of importance occurring on or about the 1st and 14th to 17th, when temperatures below zero were recorded at some places. In most districts the proportion of bright sunshine somewhat exceeded the average, fair weather prevailing on or about the 1st, 6th to 10th, 13th to 19th, and 24th to 28th. Precipitation was general on or about the 2nd, 3rd, 11th, 12th, 21st and 29th. The fall of the 21st which was heavy, was mostly snow in northern and eastern districts, and rain elsewhere, and on the 31st the ground was bare throughout the greater portion of the Province.

The weather in the Province of Quebec was somewhat milder than usual and there were comparatively few low temperatures. On or about the 15th and 16th, however, it was exceedingly cold—26 being recorded at Brome and—22·0 at Chicoutimi, and temperatures below zero were recorded at some places on or about the 1st, 4th, 10th, 18th and 25th. In most districts the precipitation was light, but at Montreal and Brome it exceeded the average. Falls of snow occurred chiefly on or about the 3rd to 6th, 10th to 14th, 21st to 24th, and last two days, bright sunshine prevailing during the intervening periods.

In New Brunswick the weather was comparatively fine and mild, but the precipitation, which included much rain, and which occurred on or about the 2nd, 4th, 10th, 12th, 22nd and 27th to 29th, was excessive in most districts. High winds were less frequent than usual, but on the 10th a gale accompanied by a heavy fall of snow was reported, the wind reaching 40 miles at St. John. Temperatures below zero were recorded on or about the 2nd, 12th and 25th.

The weather in Nova Scotia was mostly cloudy during the first two weeks, also from the 20th to 22nd and 27th to 30th, whilst the intervening periods were comparatively fine. Mild conditions generally prevailed, the temperature frequently exceeding 40° at some places and 50° on the 3rd and 4th. The precipitation which exceeded the average was recorded chiefly on or about the 3rd to 5th, 11th to 13th, 22nd, 24th, 30th and 31st. On the 10th there was a severe storm accompanied by heavy snow, a wind velocity of 63 miles being recorded at Low Point and much damage being caused thereby.

In Prince Edward Island the weather was unusually fine and comparatively mild; the precipitation, however, exceeded the average; and the falls which were chiefly rain, occurred on or about the 3rd, 10th, 13th, 21st and 30th. A gale was reported on the 10th accompanied by snow, but with this exception the winds were mostly moderate or fresh only.—F. F. Payne.

ATMOSPHERIC PRESSURE.

With local exceptions the mean atmospheric pressure for December was abnormal from British Columbia to Ontario, elsewhere in Canada the normal value was exceeded. The extremes of departure from average were −0·06 of an inch at Parry Sound, Ont., and +0·08 of an inch at Chatham, N.B.

HIGH AREAS.

Nine ares of high barometric pressure were charted during December, few being of a wintry type.

The general course assumed was southeastward from British Columbia or the North Pacific States to the Mississippi Valley and thence east or northeast to the Atlantic. Two systems travelled over the Lake Region from the North-West Provinces, and one welled down into the Province of Quebec from the Hudson's Bay District.

The absence of pronounced cold waves was a marked feature of the month.

LOW AREAS.

December was prolific of systems of low barometric pressure, no less than eighteen being sufficiently well marked to permit of their paths being charted.

The majority of the areas passed on to the Continent over Northern British Columbia and thence southeast and east over the Great Lakes to the Maritime Provinces.

Southwest areas were much in evidence and as a rule they were pronounced.

A system which apparently had its origin over the West Indies, moved into the field of observation during the 5th; it passed over Cuba and Florida, and thence up the Atlantic Coast, crossing Newfoundland during the 11th. This area gave the minimum barometric reading, reduced to sea level, of the month 28·54 inches at Halifax, N.S., on the evening of the 10th. It was also accompanied by a severe storm and heavy precipitation.

In addition to the more ordinary disturbances, there were a few which were local to the North-West Provinces.

WINDS.

In British Columbia, on Vancouver Island and over the Mainland, the direction was in favour of the east and south, with six days with strong and ten with fresh breezes and three gales.

In Alberta and Saskatchewan the west and south directions were dominant, with seven days with strong and seventeen with fresh breezes and one gale.

In Manitoba the west and south directions were most in evidence, with eleven days with strong and fifteen with fresh breezes and one gale.

In the Lake Region the direction was chiefly westerly to southerly, with nine days with strong and twelve with fresh breezes and four gales: the latter being experienced on the 2nd, the 10th, the 11th, and between the 29th and 30th.

In the Ottawa and Upper St. Lawrence Valley the direction was more variable than in the Lake Region but favouring slightly the westerly. There were three days with strong and fifteen with fresh breezes and four gales.

In the Lower St. Lawrence Valley and the Gulf the direction inclined to the west and north, with eleven days with strong and ten with fresh breezes and four gales, the gales occurring between the 3rd and 4th, on the 10th, the 21st, and between the 29th and 30th.

In the Maritime Provinces the direction was mostly northerly and westerly, with five days with strong and eleven with fresh breezes and four gales,—the gales being experienced between the 3rd and 4th, on the 10th, the 21st, and between the 29th and 30th.

The gales were successfully warned at all stations remaining open to navigation. In the Lake Region the display of storm signals was discontinued after the 10th.

A warning issued to ocean ports on the 17th was not justified by subsequent high winds

TEMPERATURE.

The mean temperature of December exceeded the average in all portions of the Dominion. In British Columbia the positive departure was from 1° to 2° ; in Alberta, Saskatchewan and Manito a it varied between 5° and 10° ; in Ontario from 2° to 6° ; in Quebec and the Maritime Provinces from 1° to 5°.

The Highest and Lowest temperatures in each Province during December, 1905, were :

British Columbia,	58° ·0 on 17th at Hedley,	—18° ·0 on 1st at Big Creek.
Alberta,	53° ·0 on 11th at Pekisko,	—28° ·5 on 2nd at Threehill Creek.
Saskatchewan	44° ·0 on 6th at Swift Current,	—26° ·0 on 3rd at Manor.
Manitoba,	49° ·0 on 6th at Almassippi,	—25° ·5 on 3rd at Aweme.
Ontario,	61° ·0 on 23rd at Paris,	—36° ·0 on 14th at White River.
Quebec,	53° ·4 on 4th at Chicoutimi,	—26° ·0 on 16th at Brome.
New Brunswick,	54° ·8 on 3rd at Fredericton,	—21° ·0 on 12th at Fredericton.
Nova Scotia,	55° ·2 on 4th at Yarmouth.	1° ·5 on 26th at Truro.
Prince Edward Island.	44° ·0 on 3rd at Charlottetown.	7° ·0 on 24th at Summerside.

PRECIPITATION.

Precipitation exceeded the average in a few isolated localities in Manitoba, Quebec and Nova Scotia, and throughout New Brunswick and Prince Edward Island ; elsewhere in Canada it was deficient. The negative departures were in certain districts very pronounced. This was especially the case in Vancouver Island and over the Lower Mainland, Victoria recording a deficieney of 4·10 inches and New Westminster 3·50 inches. In the North-West Provinces the precipitation which was probably all snow, was very light, several localities reporting none. In Ontario the deficiency in precipitation was in many parts from 1 to 2 inches. In Quebec the rainfall was generally much below the usual amount, but on the other hand the snowfall was locally in excess of the average. At the close of the month there was no snow on the ground in Southern Alberta ; elsewhere in the North-West Provinces, however, the covering was from 1 to 5 inches. In Ontario there was none in the southern parts, but 6 to 12 inches locally in the northern parts. In Quebec there was 10 inches in the western portion, increasing to 20 inches in the eastern portion. In the Maritime Provinces there was 12 to 16 inches in many parts of New Brunswick, diminishing to a few inches or more in southern Nova Scotia. In British Columbia there appears to have been a considerable quantity of snow on most of the mountain ranges.

BRIGHT SUNSHINE.

The mean proportion of bright sunshine for December exceeded the average locally in Manitoba, the North-West Provinces, and Ontario ; also over the Maritime Provinces. With these exceptions a normal or sub-normal value was registered throughout Canada. The extremes of departure from normal were − 8 % at Montreal, Que., and + 7 % at Indian Head, Sask.

Sunday, December 17th, a large meteor was seen in various parts of New Brunswick at 9.30 p.m. It was very large and passed in a northerly direction from the constellation Orion ; everything was lighted up as bright as day. On the 19th Grand Manan reports a large meteor at 6.30 p.m. bursting twice, very brilliant, visible about 30 seconds.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, 1905

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with ·01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
BRITISH COLUMBIA :—	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°	%																								
Victoria	48 24	123 19	85	30·05	30·65	29·55	1·10	42·6	1·0	14	50·7	18	27·8	31	7·1			8	10	185	70	105	96	59	73	101	55	0	744	8·6	18·7	28 SW	2·82	1·08	0·18	18	10	0	0	0
Barkerville	53 2	121 35	4180	29·91	30·46	29·25	1·21	21·1	2·1	17	37·0	19	10·0	1	11·8			7	9	0	0	0	0	5	3	2	1	51	62	1	9·3	24 S	2·80	0·30	1·00	9	15	0	0	0
Agassiz	49 14	121 31	52					41·1	+ 4·4	16	56·0	14	30·0	20	15·8			2	0	51	0	0	0	15	0	27	0	0	93				4·26	— 1·41	0·62	12	19	0	0	0
Port Simpson	54 34	130 26	26	29·70	30·27	29·03	1·24	38·1	1·5	19	38·6	16	22·0	1	7·6					2	0	32	3	27	1	3	1	1	62	8·9	19·7	9 S	10·96	0·28	1·57	26	5	0	1	0
Revelstoke	51 0	118 6	1476					30·2		6	39·0	6	10·0	2	6·6																		1·23	— 0·10	17·14	0	0	0	0	
Kamloops	50 41	120 29	1193	30·03	30·64	29·46	1·18	33·5	+ 0·8	12	44·4	26	3·4	1	10·2					0	0	6	7	3	1	1	0	45	62	2·1	11·0	10 E	0·37	— 0·44	0·20	4	27	0	0	0
Princeton	49 29	120 29	1670					27·0	+ 4·6	10	41·0	5	— 3·0	22	15·1																		0·54	1·02	0·14	6	24	1	0	0
Pilot Bay	49 39	116 55	2000																																					
Rivers Inlet	51 39	127 19	20	29·90	30·53	29·19	·34	38·4	0·8	11	46·6	16	25·0	1	6·2		96	9	18	0	1	5	16	0	3	1	0	34	93	11	V	1 E	20·09	- 6·59	2·61	27	4	0	1	0
Stuart's Lake	54 28	124 12	1800					22·8	+ 6·1	12	38·4	6	16·6	1	18·3																		2·41	+ 0·81	1·30	7	24	0	0	0
Coldstream	50 14	119 15	1246					27·8	- 9	13	0	7	2·0	1	12·0																		0·20		0·10	2	29	0	0	0
*aNanaimo	49 10	123 57		29·91	30·52	29·23	1·29	40·2		6	51·4	10	25·4	1	8·2		93	8	10	0	1	0	33	1	4	7	4	31	93	5·9	20·3	30 NW	4·78		0·76	17	14	0	0	3
Chilliwack	49 10	121 57	21	30·09	30·68	29·47	1·21	38·3		7	49·0	6	27·0	1	9·0		87	9	14	9	20	32	11	13	5	1	2	0	93				5·20		1·12	19	12	0	0	4
Winter Harbour	50 32	128 3						11·8	+ 0·9	10	55·0	11	28·0	1	8·1					0	0	0	11	4	8	4	4	0	31					22·38	+3·12	1·80	26	5	0	3	0
Nicola Lake	50 9	120 39	2120					29·2	— 1·7	10	46·0	26	6·0	2	11·7																		0·42	1·10	0·21	3	27	0	0	0
West Kootenay	49 20	117 50																																						
Garry Point	49 21	123 17						39·3	0·2	10	50·0	10	27·0	30	11·0					2	13	29	11	13	1	2	1	15	93	9·2	25·3	25 SE	3·80	1·90	0·68	11	17	0	0	1
Tobacco Plains	49 1	115 5	2681					27·4	1·2	10	40·0	12	11·0	16	9·4																		1·35	+ 0·36	0·37	7	20	0	0	5
*aVancouver	49 17	123 5		30·07	30·68	29·51	1·11	39·6		1	50·0	18	26·6	31	8·9			8	12	1	2	21	9	2	4	1	0	19	62	111	VII	5 E	6·71	—	1·07	22	4	0	0	3
New Westminster	49 13	122 54	330	30·06	30·65	29·50	1·15	39·6	1·1	12	50·0	18	27·5	1	7·6			8	13	1	7	32	2	5	4	0	1	10	62				5·51	3·49	1·01	21	10	0	0	0
Ladner	49 5	123 4						38·4	—	4	46·0	11	28·0	28	6·1																		5·37	—	1·00	14	17	0	0	0
North Nicomen	49 12	122 2	59					39·0	+ 0·6	12	50·0	18	28·0	31	7·7																		6·97	1·18	1·08	19	12	0	0	0
Quesnelle	52 59	122 30	1700					26·5	+ 4·8	13	45·0	5	— 8·0	1	13·1																		0·60	— 0·67	0·40	3	27	0	0	2
Clayoquot	49 11	125 47	40					13·7		6	53·0	17	30·0	21	9·8																		21·5		4·10	26	5	0	0	0
Cranbrook	49 30	115 50	2900																																					
Massett	53 58	132 9	30					38·6	—	8	51·0	4	26·0	8	13·5					4	9	1	14	0	1	0	0	0	62				7·77		1·15	5	16	0	0	0
Bullion	52 45	121 55	2775					27·5	+ 2·4	9	43·0	5	4·0	1	12·1																		1·10		0·70	5	26	0	0	0
Bella Coola	52 40	126 54	150																																					
Cowichan	48 25	123 42	170					38·2		2	59·1	14	25·9	31	9·0																		6·54		1·09	18	11	0	0	8
Nelson	49 29	117 21	1760					32·0		1	42·0	20	15·0	2	8·0																		1·95		0·35	17	14	0	0	0
Okanagan Mission	49 52	119 29	1200					31·7		6	47·0	27	18·0	1	11·0																		1·08		0·30	7	22	0	0	0
Alberni	49 15	124 49						38·7	+ 0·4	10	53·1	11	26·9	31	7·1																		11·28	1·94	1·75	24	7	0	0	0
Kuper Island	48 54	123 38	40																																					
Cape Scott	50 48	128 27						42·6		8	50·7	23	29·8	1	7·2																		20·59		2·27	31	0	0	0	0
Glacier	51 14	117 29	4072					21·2		5	32·0	7	3·0	1	6·3																		7·85		1·15	21	7	0	0	0
Golden	51 16	116 55	2550					23·9		4	45·0	7	— 5·0	1	14·1																								0	0	1
Spence's Bridge	50 25	121 30	760																																					
Bamfield	48 50	125 9		29·97	30·76	29·26	1·30	39·5		3	47·4	10	29·3	21	8·0			7	15	0	12	0	23	5	7	9	1	36	93				7·50		2·4	18	13	0	4	5
Big Creek	51 40	123 0						19·0	—	2	47·0	9	18·0	1	23·9																		0·90		0·60	2	27	0	0	0
Nickel Plate	49 30	120 0	5400					24·9		2	41·0	11	9·0	22	11·7																		0·73		0·10	6	25	0	0	0
Thetis Island	49 0	123 40						40·3		2	52·4	11	27·2	29	10·2																		5·10		0·83	20	11	0	0	1
Hedley								29·1		2	58·0	17	10·0	21	14·1																		0·46	—	0·20	4	25	0	0	0
Kitamaat	53 59	128 42						35·4		2	47·0	25	18·0	1	8·2					5	0	0	6	3	5	0	1	11	31				16·33	—	1·81	20	11	0	0	0
Rossland	49 5	117 48	3400					26·3		2	35·2	5	12·5	31	6·0																		2·82	—	0·71	16	17	0	0	7
*Port Essington	54 9	129 55	10																																					
Atlin																																							
Athalmur								24·3		1	56·0	10	— 2·0	1	18·3																		0·20	—	0·15	2	29	0	0	0
YUKON :—																																								
Dawson	64 1	139 20	1100																																					
White Horse	60 45	135 0	2075					8·2		2	38·0	4	— 30·0	6	21·2																		0·30	—	0·30	2	29	0	0	0

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a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'n	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroras.	No. of thunder storms.	No. of fogs.
MANITOBA *Con.*	° ′	° ′		in.	in.	in.	in.																																	
Birtle	50 25	101 1	1703					13 5	—	1	37·0	23	−20·0	3	20·8																									
Carman	49 31	98 0																																					
Pierson	49 11	101 15																																					
Virden	49 51	100 55																																					
Cypress River	49 33	99 3																																					
Oakdale Park	49 11	100 18						18·7	—	1	13·0	14	−13·6	30	18·1																									
																																		0·10		0·10	1	30	0	0	0
ONTARIO																																							
Haileybury	47 29	79 39	687	30·02	30·91	29·05	1·89	16·1	+3·9	12	39·2	1	−2·1	15	18·5			8	15	12	5	1	4	13	6	2	9	10	62	1	III	3 N	1·79	−0·62	0·60	12	13	1	0	0
Savanne	48 55	90 18	1506					9·1	+3·3	20	32·0	17	−29·0	13	22·8					0	2	0	0	0	19	1	13	51	93				0·20	−0·92	0·10	2	28	0	0	0
"Cotlam."	42 7	82 15	606					32·8	+2·8	18	48·0	8	18·0	1						22	5	1	11	11	14	10	16	0	93				1·88	−0·67	1·00	5	8	0	0	0
Brantford	43 10	80 21	750					29·1	+3·2	21	47·0	28	9·0	1	13·1																									
Parry Sound	45 19	80 0	635	30·02	30·91	29·14	1·77	21·9	+1·9	29	42·0	7	8·0	11	14·9			7	15	99	98	16	121	31	185	79	73	1	711	9·0	17·0	21 E	3·13	1·33	0·62	10	18	0	0	0
Owen Sound	44 31	80 55	597					29·0	+1·0	8	49·5	9	3·0	15	11·6					0	3	1	11	3	11	2	13	3	93				3·29	1·49	0·90	9	11	0	0	0
Beatrice	45 8	79 20	806					22·8	+3·8	30	40·0	7	8·0	14	16·7			7	17	2	0	0	13	9	9	0	12	18	93	1	III	30 SW	3·38	1·02	0·70	9	22	0	0	3
Coldwater	44 38	79 40	600																																				
Gravenhurst	44 54	79 20	770					21·9	+1·1	35	42·0	27	−10·0	15	14·5			7	13	11	3	16	18	21	8	7	2	7	93	11	VI	21 E	2·82	1·75	0·62	12	18	0	0	1
Haliburton	45 1	78 28						21·4	+2·7	17	42·0	28	6·0	14	19·6																					1·86	0·79	1·20	4	23	0	0	0
*Point Clark	44 5	81 44	595					30·6	+3·1	32	42·0	29	8·0	15				5	9	3	1	13	8	36	11	19	2	0	93	IV	X	30 W	1·65		1·00	2	20	0	0	1
Birnam	43 2	81 55	600					29·1	+3·0	21	45·1	28	10·0	1	10·6					1	1	1	8	13	13	11	10	1	62				1·62	1·96	0·76	5	25	0	0	5
London	42 59	81 13	808	30·06	30·90	29·26	1·64	29·6	+3·4	22	47·0	28	3·0	1	12·0			7	10	0	6	2	6	4	41	21	16	0	93	11	III	30 W	3·45	−0·35	1·27	10	19	0	0	2
Port Stanley	42 40	81 13	592	30·10	30·88	29·32	1·56	30·9	+2·9	31	45·2	28	3·0	1	11·5			7	15	12	2	31	72	5	188	187	193	0	711	15·1	36·0	21 SW	1·91	1·00	0·78	13	18	0	0	6
Woodstock	43 8	80 47	980	30·07	31·02	29·27	1·75	29·5	+3·8	30	45·5	28	7·0	1	11·5			7	1	2	3	12	25	3	84	17	31	9	186	13·9	26·5	30 W	1·61	0·92	0·77	5	26	0	0	0
Port Dover	42 47	80 13	635					31·1	+3·3	30	44·9	28	11·0	1	9·8					2	5	2	2	0	13	4	3	0	31				2·17	0·82	1·03	6	25	0	0	0
Pelee Island	41 50	82 38	585					29·4	0·7	27	41·0	10	1·0	4	8·4																					1·34	0·75	0·93	3	28	0	0	0
Paris	43 12	80 25	840					35·2	+8·8	16	61·0	23	7·0	1	22·5																					3·14	0·18	1·31	10	21	0	0	0
Bancroft	45 1	77 59						19·9	+0·5	13	50·1	1	−19·0	15	21·9																									
Calvin	46 15	78 48						17·5	+1·4	11	45·0	28	21·2	15	18·4																									
Agincourt	43 47	79 16						27·6	+1·1	14	45·0	28	3·0	15	11·5																					1·86	0·75	0·10	9	22	0	0	1
Hamilton	43 16	79 51	103					27·0	−0·1	28	47·0	5	9·0	3	16·7																					1·90	−0·67	0·92	5	25	0	0	2
Port Hope	43 56	78 20						27·9	+1·0	10	43·0	9	2·0	11	12·8																					1·15	−1·19	0·51	5	26	0	0	1
Kinmount	44 45	78 38																																	0·87	−2·76	0·25	5	25	0	0	0
Cockburn Island	45 57	83 18	610					26·9	—	8	45·0	29	3·0	1	13·6					2	7	6	11	9	6	9	9	3	62				1·00	—	0·30	6	25	0	0	1
Chatham	42 23	82 12	595					31·7	+3·8	19	47·0	7	15·0	15	10·1																					0·81	−2·29	0·30	3	28	0	0	0
Meaford	44 37	80 37						27·9	—	7	44·0	29	1·0	15	11·4					3	2	4	1	5	28	9	7	0	62				2·28	0·70	12	19	0	0	1
Listowel	43 44	80 58						27·4	+0·5	11	41·0	28	12·0	2	10·6																					1·65	−2·06	0·98	3	28	0	0	0
Bruce Mines	46 18	83 55	595					25·0	—	7	45·0	7	−6·0	14	11·2																					1·50		0·50	8	23	0	0	0
Rat Portage (Kenora)	49 48	94 32	1102					11·5		6	34·4	15	−22·0	13	16·9																					0·15		0·15	1	27	0	0	0
Sturgeon Falls	46 16	79 54																																					
Uplands	45 18	79 25						17·9	+1·2	2	40·5	28	−21·0	15	33·3					10	0	6	2	18	1	22	0	3	62				2·50	−1·23	0·60	9	22	0	0	0
Toronto	43 40	79 24	350	30·07	30·93	29·27	0·66	31·2	+4·9	65	46·0	27	7·0	15	11·1	26·9	84	8	13	81	15	60	12	20	300	100	61	59	741	11·1	25·2	21 NE	2·28	−0·59	1·11	12	17	0	0	2
Welland	42 59	79 17	425					31·3	+3·9	20	48·0	28	8·0	16	13·7																					3·02	+0·72	1·24	8	23	0	0	0
Peterborough	44 17	78 19	722					24·7	+3·7	30	41·0	28	−7·0	15	11·6																					1·34	−1·30	1·10	4	25	0	0	0
Lindsay	44 20	78 45	872					25·3	+3·5	21	42·8	28	3·8	15	12·6			8	19	4	2	5	12	6	2	9	10	25	93	1	IV	30 W	3·12	+0·28	1·35	11	13	0	0	4
Deseronto	44 11	77 1	264																																				
Lakefield	44 25	78 15						25·7	+5·1	16	47·0	6	7·0	15	15·1																					2·10	0·40	0·80	7	24	0	0	0
Kingston	44 13	76 29	285	30·07	30·96	29·25	1·71	26·7	+2·8	31	43·3	28	1·7	15	13·7					6	16	2	4	1	13	12	8	0	62		25·0	22 SW	3·21	0·00	1·30	14	13	0	0	0
Clontarf	45 23	77 9						21·0	+2·8	18	46·0	28	−18·0	15	19·2																					1·52	1·06	0·30	8	23	0	0	0
Ottawa	45 26	75 42	291	30·01	30·90	29·17	1·73	21·7	+4·7	22	42·0	27	−10·0	15	11·9																					2·33	0·60	0·61	12	15	0	0	0
Rockliffe	46 9	78 6	557		30·96	29·20	1·76	16·2	+2·3	28	40·0	8	−25·0	15	18·2			7	11	5	5	8	6	1	12	12	11	2	62		III	21 E	1·82	−0·60	1·01	8	23	0	0	0
*Sarnia	42 59	82 24	586					28·6	+2·5	11	46·0	8	8·0	15																					1·30	−0·70	1·00	5	29	0	0	1
Stratford	43 23	81 0	1191					29·6	+6·0	40	41·0	5	7·0	15	11·0																					2·76	−0·84	1·80	5	26	0	0	
Lucknow	43 56	81 30						28·5	+1·1	19	44·3	28	1·0	16	10·1																					3·10	1·25	0·55	11	17	0	0	
White River	48 35	85 16	1252	29·96	30·63	29·22	1·41	14·6	+6·9	16	38·5	17	−36·0	11	22·4			8	13	100	15	87	84	69	65	109	65	60	741	6·1			1·21	−0·57	1·23	16	11	0	0	

ONTARIO *Concluded.*

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a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observ'tn	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of dewpoint.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month.	Days with '01 or more.	No. of fair days.	No. of auroræ.	No. of thunder-storms.	No. of fogs.
NOVA SCOTIA *Continued.*																																									
*a*Pictou	45 42	62 41						24·9	—	28	48·5	3	6·3	25	15·0			8	5	4	7	2	6	0	6	19	26	8	78	4	IV	10 SE	1·23	+1·03	1·16	8	16	0	0	5
Port Hastings	45 39	61 22	45					33·9	+1·6	13	47·0	19	15·0	26	8·7					1	1		1	0	7	9	1	0	31				1·78	−0·62	0·42	5	25	0	0	2
*Whitehead	45 15	61 8	20					30·5	0·0	22	45·0	3	19·0	12						6	16	12	1	1	11	13	35	5	93				2·92	−0·68	1·71	5	26	0	0	2
*Sable Island, E. Point	43 58	59 46	25					37·0	+1·0	20	51·5	4	26·0	25						11	4	2	16	4	7	15	34	3	93				1·06	+0·89	1·56	9	22	0	0	3
Sable Island, M. Station	43 57	60 6	25																	27	71	31	81	19	75	70	339	28	741	10·9										
Parrsboro'	45 23	64 19	40					25·4		9	53·5	3	0·0	15	17·7																		1·09		1·12	8	23	0	0	0
Wolfville	45 7	64 20	28					28·6		8	52·0	3	8·0	16	11·8																		2·52		1·20	7	22	0	0	0
Bridgetown	44 49	65 16	90																																					
Windsor	44 59	64 6	90					27·4		3	51·0	4	9·5	16	13·0																		1·79	—	2·49	9	22	0	0	0
P. E. ISLAND																																								
Charlottetown	46 14	63 10	38	29·97	30·74	28·58	2·16	25·4	+1·4	30	44·0	3	9·0	25	10·4			8	15	18	86	6	54	5	162	80	324	9	744	9·4	16·7	30 W	1·81	+1·15	1·11	11	18	0	0	0
Hamilton	46 25	63 18						23·0	—	8	42·0	1	10·0	1	12·0					2	0	1	1	2	8	16	1	0	31				3·07		1·20	5	26	0	0	0
Summerside	46 18	63 51						24·0	—	6	44·0	2	7·0	24	11·6					0	1	1	2	0	12	2	10	0	31				1·16		1·32	6	25	0	0	0
NEWFOUNDLAND																																								
St. John's	47 34	52 42	125	29·71	30·35	28·73	1·62	26·8	−1·9	33	45·0	3	5·0	26	12·2			6	8	32	8	9	9	13	1	5	1	0	62		23·0	10 SE	1·71	0·38	1·65	10	21	0	0	0
*Channell	47 37	59 9	50					26·9	+0·1	20	40·0	3	13·0	13	9·8			8	16	0	1	7	19	3	2	47	13	1	93	IV	VI	11 W	0·70	3·28	0·60	2	29	0	0	0
*Cape Norman	51 38	55 52																																						
*Amour Point	51 28	56 51																																						
*Point Rich	50 42	57 25						16·8	−5·4	21	35·0	18	2·0	1						40	10	21	0	1	1	11	9	0	93				1·40	1·76	0·60	5	26	0	0	0
BERMUDA—																																								
Prospect	32 17	64 30	151	30·15	30·57	29·67	0·90	66·4	+1·8	14	75·4	1	56·1	2	9·6			7	1	3	6	0	4	1	18	1	7	22	62		22·5	10 SW	9·61	+1·80	4·61	16	14			

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING DECEMBER, 1905.

STATION.	RAINFALL					SNOWFALL				REMARKS
	Amount in inches	No. of Days, '01, or Over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date.	
	in.			in.		in.		in.		
BRITISH COLUMBIA—										
Coquitlam	9·86	13	18	2·56	25	.....	...	.....	..	
Goldstream Lake	5·25	22	6	0·74	25	10·0	6	3·0	27	
Hartley Bay	33·19	30	1	·16	4	2·5	2	1·5	30	
Nanaimo	5·47	16	15	1·88	24	.....	...	.....		
Naas Harbour	8·99	10	14	2·03	8	30·0	7	14·0	14	
Somas River	13·05	21	9	2·33	25	1·7	2	1·2	23	
Sooke Lake	9·66	17	13	1·54	26	0·5	2	0·3	23	
Royal Oak	1·52	12	19	1.01	25	.....	...	.....	..	
ALBERTA—										
Bruederheim	0·02	1	28	0·02	6	1·0	2	0·5	8	
Beaver Hills W.	0·00	0	27	0·00	0	4·9	4	2·3	10	No snow or rain.
Coutts	0·00	0	00	0·00	0	0·0	0	0·0	..	
Lacombe	0·00	0	26	0·00	0	0·6	5	0·6	26	
Stirling	0·00	0	00	0·00	0	0·0	0	0·0	..	
SASKATCHEWAN—										
Duck Lake	0·00	0	29	0·00	0	5·0	2	3·0	8	
Dirt Hills	0·00	0	27	0·00	0	5·0	4	4·0	1	
Herbert	0·00	0	28	0·00	0	3·0	3	1·5	27	
Insinger	0·00	0	28	0·00	0	3·5	3	2·0	6	
Jumping Pound	0·04	1	30	0·04	11	0·4	1	0·4	11	
Last Mountain	0·00	0	30	0·00	0	0·5	1	0·5	8	
Regina	0·00	0	30	0·00	0	1·0	1	1·0	29	
MANITOBA—										
Belmont	0·00	0	27	0·00	00	.....	4	.....	..	25 on 3rd,
Cartwright	0·00	0	26	0·00	00	5·0	5	2·0	1	20th—21st Foggy.
Gretna	0·00	0	24	0·00	00	8·5	7	4·3	1	17th ploughing, bare of snow
Moreton	0·00	0	29	0·00	00	2·7	2	1·5	10	22° on 3rd.
Norquay	0·00	0	27	0·00	00	3·5	4	1·5	2	Aurora 27th.
Rapid City	0·00	0	13	0·00	00	11·9	18	3·5	8	
ONTARIO—										
Eauclaire	1·00	4	17	1·00	29	15·8	13	5·0	22	
Fitzroy Harbour	1·02	3	20	0·53	22	11·0	8	6·0	21	
Gower Point	0·56	1	25	0·56	28	13·0	5	7·0	20	
Arnprior	1·93	3	23	1·11	29	13·8	5	7·0	22	14th—20
Lake Talon	0·46	1	21	0·46	29	14·6	9	3·5	21	
Pinisi Bay	0·46	1	21	0·46	29	14·1	9	3·0	21	
Bonfield	0.31	1	23	0·31	29	11·8	7	6·0	21–22	
Nasbonsing Lake	0·31	1	23	0·31	29	10·8	7	5·5	22	
White Fish Pond	0·31	1	23	0·31	29	11·8	7	6·0	22	
Sydenham	3·45	3	23	2·00	29	9·0	5	3·0	11	
Wiarton	1·71	7	17	0·55	21	17·5	7	6·0	23	
Ursa	1·91	2	22	1·08	21	34·0	7	12·0	12	
Westport	1·62	3	21	1·12	29	7·1	7	3·0	11	6th—lake frozen.
Smiths Falls	0·53	2	24	0·50	30	10·0	5	2·5	14	
Westminster	1·54	5	23	0·82	21	5·0	3	3·0	30	
Deer Park	2·04	4	23	1·18	21	4·2	4	2·5	12	
Montague	0·98	1	25	0·98	29	11·0	5	1·0	21	9th—14
MacCue	2·35	2	25	2·35	29 30	8·5	1	3·0	21	
Aurora	0·60	4	20	0·36	29	10·4	7	3·8	21	
Midland	0·00	0	19	.....		28·0	12	6·0	31	
Huntsville	0·65	1	22	0·65	29	13·0	8	3·5	21	
Croydon	3·35	3	22	2·15	29	14·0	6	4·0	21	
Wyoming	1·05	2	25	0·85	20	1·0	4	2·0	3	
Parma	3·10	5	20	0·93	30	8·0	6	2·0	11	
Orangeville	0·75	2	22	0·42	29	15·9	7	10·5	21	
Princeton	1·80	4	25	1·25	22	7·0	2	6·0	2	
Dutton	1·70	3	23	0·95	21	1·0	5	1·0	30	
Wooler	1·89	4	25	1·15	29	8·0	2	6·0	21	
Arden	3·14	6	18	1·57	29	14·0	7	5·0	21	
Georgetown	1·58	5	15	1·13	21	7·8	11	2·8	12	
Goderich	0·60	2	26	0·40	2	5·6	3	2·0	24	
Watford	1·50	3		0·86	21	0·0	0	0·0	..	
Lansdowne	1·87	3	24	0·86	29	6·0	4	2·0	21	
Emsdale	0·31	1	19	0·31	30	22·3	11	9·0	22	
Ennismore	0.65	2	27	0·50	29	13·0	2	10·0	23	
QUEBEC										
Bryson	0·60	2	19	0·60	28	16·0	10	9·0	21	
NEW BRUNSWICK—										
Point Escuminac	0·00	0	23	0·00		22·7	8	7·1	22	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF DECEMBER, 1905.

	Hours Ending															
	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.
Victoria				0·00	0·02	0·42	0·24	0·22	0·24	0·22	0·18	0·00	0·00	....	....	....
Nanaimo				0·00	0·00	0·05	0·15	0·19	0·25	0·21	0·15	·03	0·00		....	....
Agassiz				0·00	0·00	0·07	0·11	0·15	0·11	0·06	0·03	0·01	0·00	.....	....	....
Battleford		..		0·06	0·29	0·41	0·36	0·13	0·30	0·26	0·05	0·00	0·00	..	..	
Indian Head		..	..	0·00	0·00	0·15	0·29	0·46	0·59	0·55	0·35	0·11	0·00	....	...	
Brandon		..	...	0·00	0·02	0·21	0·40	0·45	0·55	0·53	0·48	0·32	0·00	..	..	
Winnipeg		..	...	0·00	0·18	0·31	0·47	0·43	0·45	0·44	0·39	0·11	0·00	..	..	
Woodstock		..	..	S	0·11	0·18	0·28	0·30	0·27	0·27	0·29	0·22	0·01		....	
Toronto		..	..	0·00	0·08	0·21	0·28	0·31	0·35	0·32	0·30	0·29	0·03		..	..
Lindsay		....	....	0·00	0·08	0·12	0·25	0·26	0·25	0·27	0·25	0·22	0·05	...	..	..
Barrie	.....	..	.....	S	0·07	0·17	0·22	0·25	0·32	0·30	0·27	0·07	0·13		...	..
Gravenhurst	...	.....	.....	0·03	0·20	0·31	0·36	0·33	0·35	0·37	0·35	·31	0·12		.....	..
Kingston	.	....	.....	0·02	0·13	0·23	0·31	0·32	0·32	0·31	0·27	0·21	0·01		....	...
Ottawa	...	.....	.....	0·03	0·12	0·27	0·33	0·36	0·35	0·34	0·29	0·15	0·01	..	.....	..
Montreal	...	..	.....	0·00	0·01	0·10	0·17	0·22	0·30	0·28	0·22	0·07	0·00	....	.....	..
Quebec	..	.....	.....	0·00	0·08	0·19	0·28	0·35	0·36	0·30	0·57	0·24	0·00	.....	.....	
Fredericton	...	.....	.....	0·04	0·25	0·35	0·40	0·45	0·46	0·43	0·42	0·31	0·02	..	...	....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Woodstock.	Toronto.	Lindsay.	Barrie.	Gravenhurst.	Kingston.	Ottawa.	Montreal.	Quebec.	Fredericton.
Mean proportion for month. (*Constant sunshine being 1.*)	0·15	0·12	0·07	0·28	0·30	0·37	0·34	0·21	0·24	0·20	0·20	0·31	0·24	0·25	0·20	0·26	0·36
Difference from average	0·00	–	−0·07	−0·02	+0·07	+0·03	−0·01	+0·01	+0·01	0·00	0·00	—	−0·01	+0·00	−0·08	—	+0·02
Maximum daily amount	0·71	0·72	0·49	0·61	0·75	0·83	0·87	0·90	0·86	0·90	0·92	1·00	0·95	0·90	0·77	0·90	1·00
Date	21	21	21	1	5	2	4	27	14	14	14	14	14	14	28	1	15
No. of days completely clouded	12	10	19	3	9	6	14	17	14	18	9	14	18	11	16	12	13

Thunder recorded on :

6. Winter Harbor.

7. Bamfield.

19. Bamfield, Winter Harbor.

21. Halifax.

24. Rivers Inlet.

25. Rivers Inlet, Port Simpson.

26. Bamfield, Rivers Inlet, Winter Harbor. Clayoquot.

27. Bamfield, Rivers Inlet, Thetis Island.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

2. Threehills Creek, IV.

3. Prince Albert, I ; Swift Current, IV.

4. Prince Albert, I ; Battleford, IV.

5. Haileybury. III.

12. Prince Albert, I ; Albion, III.

17. Gray Hill, IV.

18. Alameda, I.

19. Gray Hill, IV ; Hillsdown, IV ; Chaplin.

20. Albion, IV ; Chaplin.

24. Chaplin.

25. Battleford, III ; Morden, III ; Albion, IV ; Chaplin.

27. Rapid City.

28. Battleford, III : Qu'Appelle, IV ; Morden, IV : Gray Hill, IV ; Threehills Creek, IV ; Knee Hill ; Chaplin.

29. Albion, IV : Gray Hill, IV ; Chaplin.

30. Hillsdown, III.

FORECASTS FOR DECEMBER, 1905.

The forecasts issued by this office at 11 p.m. each night, are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1265. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Per-centage.
Alberta	85	62	14	9	81·2
Saskatchewan	87	64	18	5	83·9
Manitoba	87	65	16	6	83·9
Lake Superior	106	82	15	9	84·4
Lower Lake Region	120	92	19	9	84·6
Georgian Bay	120	95	16	9	85·8
Ottawa Valley	110	93	15	2	91·4
Upper St. Lawrence	109	91	13	2	92·2
Lower St. Lawrence	101	79	11	11	81·3
Gulf	106	84	11	11	84·4
Maritime Provinces, West	116	91	14	11	84·5
Maritime Provinces, East	115	99	8	8	89·6
Total	1265	1 00	170	95	85·8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
16th February, 1906.

P
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Can.
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